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AUTHOR	Mintz, Raymond D.; And Others
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ABSTRACT

The document is the second of three volumes (see also EC 032 850 and EC 032 852) of State Analysis Reports resulting from Phase III of the Study of the Need for Educational Manpower for Handicapped Children and Youth, which involved a validation study and state surveys related to the Manpower Requirements Projection Model (MRPM). Included in this volume are individual reports on special education Projection Model (MRPM). Included in this volume are individual reports on special education information flow in states in alphabetical order from Kentucky through North Carolina. Recommendations made for each state provide guidance for developing an information flow that will enable that state to utilize the MRPM and improve the availability of information for other special education management functions. (See EC 032 847- EC 032 849 and EC 032 850 and EC 032 852 for related information.) (KW)

EC032851

ORI

Operations Research, Inc. A Subsidiary of Leasco Systems Corporation

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OPERATIONS RESEARCH, Inc.

SILVER SPRING, MARYLAND

STUDY OF THE NEED FOR EDUCATIONAL MANPOWER FOR HANDICAPPED CHILDREN AND YOUTH— PHASE III REPORT

PART D—STATE ANALYSIS REPORTS

1 May 1970

Prepared under Contract No. OEC 0-9-08928-0710
for the Bureau of Education for the Handicapped,
Office of Education, U.S. Department of Health, Education, and Welfare

PREFACE

The "Study of the Need for Educational Manpower for Handicapped Children and Youth—Phase III Report" has been organized so that appropriate parts of it may be conveniently distributed to those most immediately concerned with the content of each part. The general content of each part is as follows:

- Part A, Phase III Final Report, contains the overall report on the Manpower Requirements Projection Model (MRPM) validation efforts and the activities, findings, and conclusions of the state survey. Its appendices also contain implementation cost estimates and summaries of the enrollment and employment data collected during the state survey.
- Part B, Special Education Staff Users' Guide, contains both the general and the detailed guidance necessary for non-technical oriented personnel for understanding and implementation of the MRPM.
- Part C, Manpower Requirements Projection Model—Technical Documentation of the Computer Program, which is written for the technically oriented user of the MRPM, provides the technical details necessary for understanding the model formulations and computer programs.
- Part D, State Analysis Reports, includes individual reports on each state's special education information flow.

Parts B and C are bound together in one volume; Part D is divided into three volumes for ease in handling.

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KENTUCKY STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Kentucky, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

Kentucky's Division of Special Education is currently receiving data from the local education agencies, the state schools for the blind and the deaf, and the private schools providing special education, but the set of data elements collected is incomplete for Manpower Requirements Projection Model needs. Building upon the good rapport and the existing data flow between the local, state, and private agencies and the Division of Special Education, Kentucky should have little problem developing a more complete and automated information system relating to the handicapped child population. A possible minor problem could arise in an attempt to develop a data flow between the local education agencies who do not provide any special education services and the Division of Special Education. All factors considered, a data summary type of special education information system has a high probability of being developed and implemented in a relatively short period of time.

The proposed information system should result in successive improvements in the completeness and the accuracy of the data elements over time, with such validity being achieved within a few years at the most. Later documents pertaining to this project contain more information about methods which may be used to estimate some of the data elements until a good information flow is developed and validated.

Within the Department of Education, the data processing hardware available for use by the Division of Special Education has the capability to handle the processing of the information in the data summary system, but a larger computer system will have to be used on a leased-time basis for the running of the programmed Manpower Requirements Projection Model.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The state Department of Education is responsible for curriculum, personnel, policy, planning, financing, and monitoring operations of all public and state schools. The chief representative of the Department of Education in the state hierarchy is the Superintendent of Public Instruction, an elected official, who by law may not succeed himself. The State Board of Education is appointed by the Governor and works with the Superintendent. The two state schools for the blind and the deaf are directly under the Bureau of Instruction in the State Department of Education, as are all functions of the Division of Special Education.

The state Department of Education treats the 193 local school districts administratively as equals. Of these 193 districts, 73 are classified as independent districts (each represents a large city) and the remainder of each of the 120 counties is classified as a school district.

The Division of Special Education is organizationally on the same level as the Divisions of Computer Services, Pupil Attendance, Title I ESEA, and Teacher Certification. This level also includes the Division of Elementary and Secondary Education, which has the majority of the budget, programs, and thus priorities. The Division of Special Education is responsible for:

- Development of regulations and guidelines for each type of special education program
- Administration of the program of special education at the state level
- Approval of state reimbursement of special education units [1] for a local school district. The Division has no authority to approve or disapprove special education classes that are funded solely by the districts
- Approval of local district special education programs funded by Title I ESEA
- Supervision of classroom units by assisting local districts in planning, establishing, and maintaining those units
- Coordination of special education services with all other agencies and organizations dealing with exceptional children
- Administration of personnel incentive programs.

The Department of Education certifies teachers employed in each State Hospital and School, but has no formal liaison with the latter's education programs.

All education facilities in the state (public, private, parochial, and experimental) must report pupil attendance figures to the Department of Education if they are accredited. The three components of the Kentucky State Hospital and School (two for the mentally retarded and one for the emotionally disturbed), operated by the Department of Mental Health, are the only other state institutions offering special education and currently do not formally report any information to the Department of Education.

An organization chart depicting agencies concerned with special education in Kentucky, is presented in Figure 1.

Since the two groups responsible for public special education programs report to different and independent branches of the state government, there are no formal responsibility links; any interdepartmental liaison is informal and voluntary. A good working relationship and exchange of information currently exists between the departments.

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[1] A "unit," the basis of state reimbursement to local public schools in Kentucky, is a fixed amount of money to defray costs of the teacher, overhead, and materials for an appropriate number of pupils.

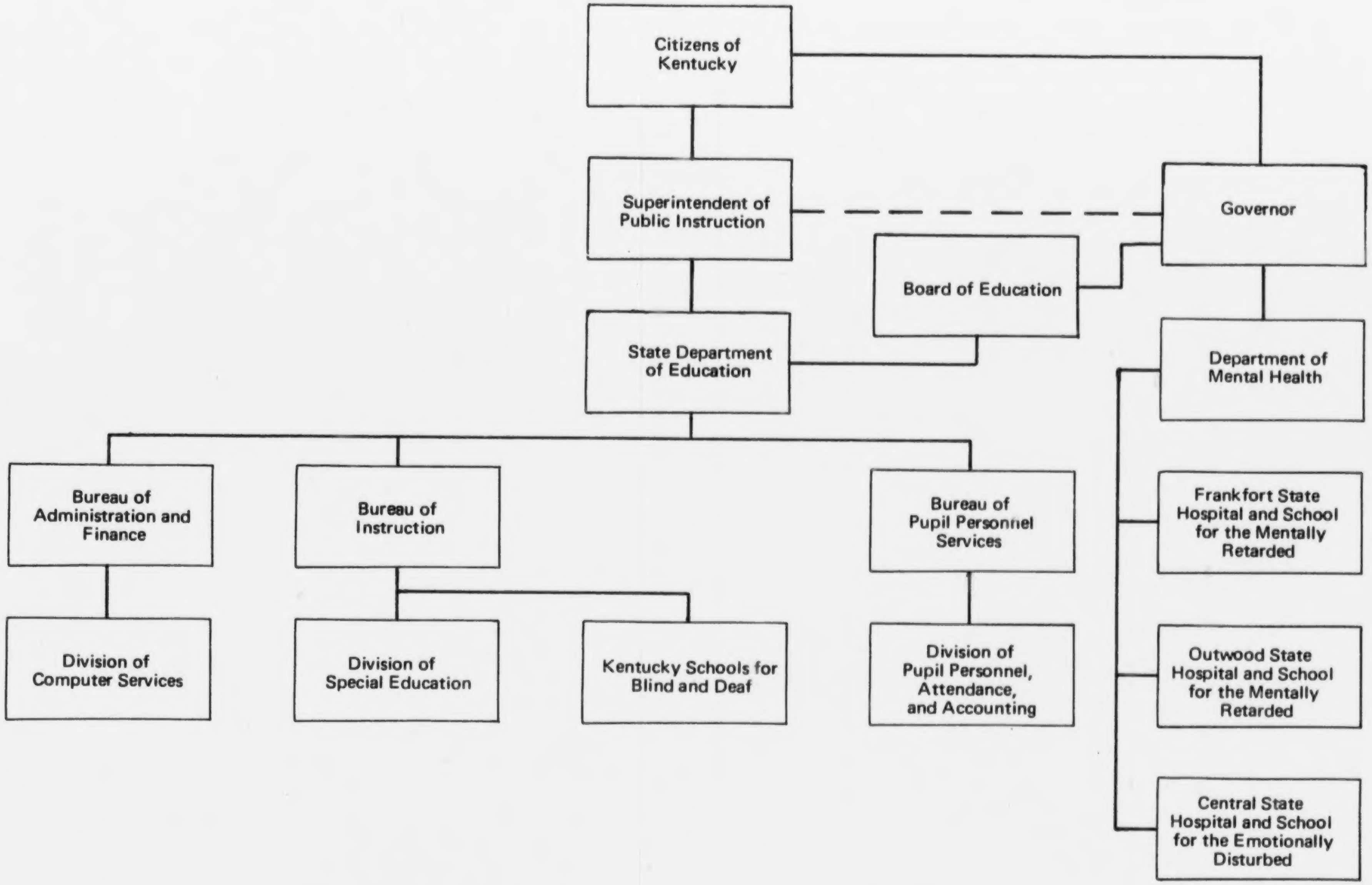
Citizens of Kentucky
Superintendent of Public Instruction
State Department of Education
Governor
Board of Education
Department of Mental Health
Frankfort State Hospital and School for the Mentally Retarded
Outwood State Hospital and School for the Mentally Retarded
Central State Hospital and School for the Emotionally Disturbed
Bureau of Administration and Finance
Division of Computer Services
Bureau of Instruction
Division of Special Education
Kentucky Schools for Blind and Deaf
Bureau of Pupil Personnel Services
Division of Pupil Personnel, Attendance, and Accounting

FIGURE 1. KENTUCKY ORGANIZATIONS CHART, RELATING TO SPECIAL EDUCATION

IV. DATA ELEMENT EVALUATION

For the school year 1969-70, 148 school districts in Kentucky are providing some type of special education services that are approved by the Division of Special Education. All of the data for this locally sponsored special education that are currently collected originate from the classroom teachers and speech therapists and are reported to the state on three sets of forms by three different data sources—teachers, local Directors of Pupil Personnel, and local Superintendents. Data about each state hospital and school are not formally reported to the Division of Special Education but could be requested from the Department of Mental Health or from the administrators of each institution.

In the following paragraphs, the data elements needed by the Manpower Requirements Projection Model and by the state for planning purposes are discussed in terms of their availability and development potential. Although some of the special education data are currently reported to the state by child name, the state personnel interviewed did not consider it necessary to maintain data files at the state level by child name. Thus the development of each data element is discussed as it would fit into the framework of a data summary type of information system (e.g., data reported in totals by age and handicapping condition) rather than a modified pupil accounting system.

Identified Handicapped Population

The number of children enrolled in special education, by age, handicap, and educational program, is the first component of the most important data element, i.e., the number of children identified as needing special education. Currently, there are three sets of documents in Kentucky that provide data about the enrolled population.

The first, a ten-part form entitled "Annual Report on Classroom Units for Exceptional Children" (see Section X, pp. D17-16 through D17-19) is filled out by each special education teacher and speech therapist and is sent directly to the Division of Special Education each October. This is the only general report from the field that is not sent directly to the Division of Pupil Personnel Attendance and Accounting. Each of the ten parts of the form were designed independently to request data for a handicap category and to serve as support for the certification request for state supported special education units. For all handicaps except speech and mental retardation, enrollments are reported by child name and age (or date of birth). To ease the processing of the detailed enrollment data now collected and to permit the collection of such data about the speech handicapped, the educable mentally retarded, and the trainable mentally retarded, a simple two-row matrix (one for age and the other for number of children) could be added to the bottom of each part of this report form for each teacher or therapist to summarize his data.

The second set of forms, entitled "Superintendent's Annual Statistical Report," is submitted to the state at the end of the school year and contains a summary at the school district level of all public and private school data, which is reported to the Superintendent on the "Principal's Annual Report" (see Section X, pp. D17-20 and D17-21). Enrollment data on these forms are given by year end membership totals for each handicapping condition. The remaining data collected by the "Superintendent's Annual Statistical Report" are discussed below under the "Entrants and Attritions" subsection. In order to be able to use these forms to collect the needed special education information, major changes in their formats would have to be made and codes applicable to the possible changes of educational status of handicapped child would have to be added to the present coding scheme (i.e., classifying children as original entries, re-entries, or withdrawals).

Each May, the local district Director of Pupil Personnel submits to the state the third set of documents, entitled "School Census Report" (see Section X, pp. D17-22 through D17-24). They contain a count, by age and handicapping condition, of the number of handicapped children that exist. There is no way to separate the number that are enrolled in special education programs. For this reason and because some doubts have been raised about the validity of the totals reported, this set of forms should not be considered as data collection instruments for a special education information system. However, the format of the matrix used to record the number of children by age and handicap is good and should be considered for use in collecting needed data from other data sources.

The analyst was unable to determine fully the existence and availability of data concerning the number of children on special education waiting lists, the second component of the identified handicapped child population. Assuming that each local district's Director of Pupil Personnel or a representative in charge of special education (e.g., Supervisor of Special Education) has access to such data, if the local districts can be convinced of the value of their and the state's keeping track of these data for planning purposes, a request for the number of children on that waiting list, by age and handicapping condition, could be made on a simple matrix form at the same time as the enrollment data request.

A set of similar matrix forms could be used to request enrollment and waiting list data from the state schools for the blind and the deaf and, on a voluntary basis, from the private schools and each state hospital and school operating special education programs.

A validity problem may arise with the latter data element if a large proportion of the children on the waiting lists for state or privately operated programs are being served in local programs or have moved out of the state. If it is determined that this is the case, the request for state and private waiting list data could be dropped.

Unidentified Handicapped Population

Since no complete and systematic diagnostic referral system now exists at the state or local level in Kentucky, data on the unidentified handicapped child population will probably have to be estimated using the prevalence rates that the Division of Special Education currently uses. These rates are slight modifications, based on experience and expert opinion, of prevalence rates published by BEH. This estimation of the unidentified population would be used rather than an estimate of the diagnostic waiting list and the potential undiagnosed population.

Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

Entrants and Attritions

Information about the number of children moving into and out of the identified handicapped child population is not collected as such. Data about the number of children entering and withdrawing from the population enrolled in special education programs is contained in the "Principal's Annual Report," and thus the "Superintendent's Annual Statistical Report," but these are very misleading counts. A child who is on the waiting list is counted as a re-entry when he is enrolled in a special education and as a withdrawal from regular education, but what the Division of Special Education needs to know is that the child remained in the handicapped child population and merely changed his educational status. A more misleading count occurs when a child who is enrolled in a special education program in one school transfers to a similar program in another school within the same district; the child is counted as a withdrawal by his old principal and as a re-entry by his new one. Although district-wide and state-wide figures should not reflect either of the movement records of that child, such records are now included in district and state totals.

Data about new entrants to the handicapped child population should be collected for two subcategories: the number of children who are newly diagnosed as needing special education and the number who are intrastate transfers (new entrants to a local district who have been previously diagnosed by another district within the state). Due to the lack of a structured diagnostic reporting system (i.e., all or most of the diagnoses reported to a central source, such as the the local school district), the number of children newly diagnosed as needing special education cannot now be completely and accurately collected in Kentucky. The local district is recommended as the central source because it is there that a child is processed by the Supervisor of Special Education or the Admission and Release Committee to determine his eligibility for special education and then is admitted into a program. The best way of obtaining complete data about children who are newly diagnosed is to obtain the cooperation of all diagnostic facilities (including the Diagnostic and Evaluation Center at each State Hospital and School) to effect the notification of the applicable local school district by the facility when a child is determined to need special education. The local district could then be queried about new entrants, during the previous year, to the identified handicapped child population (separated into two subcategories: newly diagnosed and intrastate transfers) on a simple matrix form at the same time that enrollment and waiting list data are requested.

The only useable information about attritions (from the standpoint of total manpower planning) that is currently collected details, by handicap and the reasons for attrition, the children who leave the population enrolled in public or private special education programs in a local school district. More detailed information about attrition from the total handicapped child population needing special education should be easy to develop if the cooperation of the local school districts is obtained. Attrition data could be collected, by age, handicap, and reason for attrition (e.g., return to regular education[2], moved out of district), on a simple matrix form similar in design to those used to collect waiting list and entrants data.

Entrants and attritions should be kept by, and collected from, the local districts for the total identified population, not for the enrolled and waiting list populations separately. This will avoid possible double counting. As mentioned above, a child who moves from the waiting list to the enrolled list should not be counted as an attrition or a new entrant—he has remained in the handicapped child population and merely changed his educational status.

Similar matrix forms could be used by the Division of Special Education to request entrants and attrition data from the state operated and privately operated programs. Here again, unless the program maintains an up to date waiting list, the validity of entrants and attrition data (especially these data relating to children on that waiting list) may suffer.

Other Data Elements

The analyst was unable to determine the existence of projections of Kentucky's school age population by single year of age, used in conjunction with incidence rates by the Manpower Requirements Projection Model to calculate the projected number of new entrants into the handicapped child population.

Other government agencies, e.g., a department of finance, and universities should be contacted to determine the possible existance of such projections.

The Director of the Division of Special Education and/or her staff can provide the data needed to simulate special education with a minimum of reporting of program policy from state operated and publicly operated programs. Thus, little development effort is needed for the following data elements.

- Trends in the number or proportion of enrolled children being served in each educational program, by target group (an educationally meaningful combination of handicapped condition and education level); termed educational program mix
- The types of personnel (occupations) serving each target group in each educational program and their associated personnel/pupil contact ratios.

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[2] An important category for program evaluation.

The Division of Pupil Personnel Attendance and Accounting maintains detailed data about the number of special education personnel employed, by type, in the local public programs; these data can be used to calculate the current manpower gap. The number of personnel employed in state operated and privately operated special education programs could be reported either on a simple matrix form or informally in a letter.

V. PROCESSING POTENTIAL

Within the Bureau of Administration and Finance of the Department of Education, the Division of Computer Services is responsible for performing the systems analysis and the computer programming required to implement all approved data processing requests. At present, the staff of the Division of Computer Services consists of programmer/analysts, computer operators, and keypunch operators. If availability does not become a constraint, such a staff is adequate to develop and implement a data summary type of special education information system in Kentucky.

The data processing hardware maintained by the Division of Computer Services consists of a Honeywell H-200 computer system, with a FORTRAN compiler and 24K characters of core sotrage, and a sorter for unit records; there are currently no internal charges for their services. The H-200 computer system is adequate to handle the processing of a data summary type of information system on a larger system (within the State government or at a university perhaps), but computer time will have to be leased for the running of the Manpower Requirements Projection Model for the Division of Special Education.

Dr. Stella Edwards, the Director of the Division of Special Education, is receptive toward the concept and the use of the mathematical model to project special education manpower requirements and for other state planning purposes. She and Mr. Thomas Robeson, the Assistant Director, are capable of preparing the input for and analyzing and evaluating the output from such a model. Dr. Edwards indicated a willingness to assist and direct the modifications to the current information systems and to direct the education of state and local personnel about the manpower projection process.

VI. ADDITIONAL FACTORS

The Division of Special Education combines its budget request with those of the other divisions in the Bureau of Instruction. The resulting "package" budget is then approved (or not) in its entirety by the governor. Thus, whatever the Bureau considers important can be funded or otherwise assisted.

In some of the Kentucky counties (and thus the local districts), it is difficult to organize special education programs because of the sparse population. This lack of local special education service has some implications on the development of a statewide information system and the data required by the model. One is that, due to lack of local service, parents and teachers are not encouraged to diagnose handicapped children unless they might be eligible for admission to a state school or institution. Thus, even in the future, special education waiting list data would underestimate the unserved handicapped child population, which would therefore include an unknown number of unidentified children, and data on the rate at which children are diagnosed as needing special education in those districts will not reflect the actual new incidence of handicapping conditions. However, since the handicapped child population in these counties is small, the lack of complete data is not likely to affect adversely the validity of statewide data tabulations.

The only other significant problem which may occur concerns the issuance of interagency cooperative directives at the state level setting up the diagnostic reporting procedures, which are a prerequisite to the collection of accurate and complete data on the newly diagnosed handicapped child population. The effect of such directives on increasing communication between such activities as state sponsored clinics and the local school districts is still undetermined, as is the method to be used to increase communication between private diagnosticians and the local districts.

By statute, it is required that a census of all handicapped children be conducted annually in each Kentucky school district. This is done by the Director of Pupil Personnel at about the same time as the "Principal's Annual Report" is being prepared. The validity of the figures from the "School Census Report" has been questioned because they are not sufficiently close to those reported by the principals. Until discrepancies are pinpointed and eliminated, the "School Census Report" should not be used as a basis for a special education information system.

VII. RECOMMENDATIONS

In order to provide for data needs of the Manpower Requirements Projection Model and other data requirements of the Division of Special Education, it is recommended that Kentucky consider implementing a detailed data summary type of information and processing system (one in which the data elements are summarized into categories by the local districts and other data sources and are used in summary form by the state information system). To initiate this system, the current "Annual Report on Classroom Units for Exceptional Children" forms can easily be modified by adding a two-row matrix to the bottom of each form. Even a current form containing space to list 20 children, e.g., for Crippled and Special Health Problems (see Section X, p. D17-17), has room enough at the bottom to add such a matrix, an example of which is depicted in Figure 2.

Summary of Enrollments									
Age									
Number of Children									
Type of Unit:	☐ Full time		☐ Co - op		☐ Resource		☐ Itinerant		

FIGURE 2. EXAMPLE OF SIMPLE MATRIX USED TO SUMMARIZE ENROLLMENTS BY AGE FOR EACH UNIT

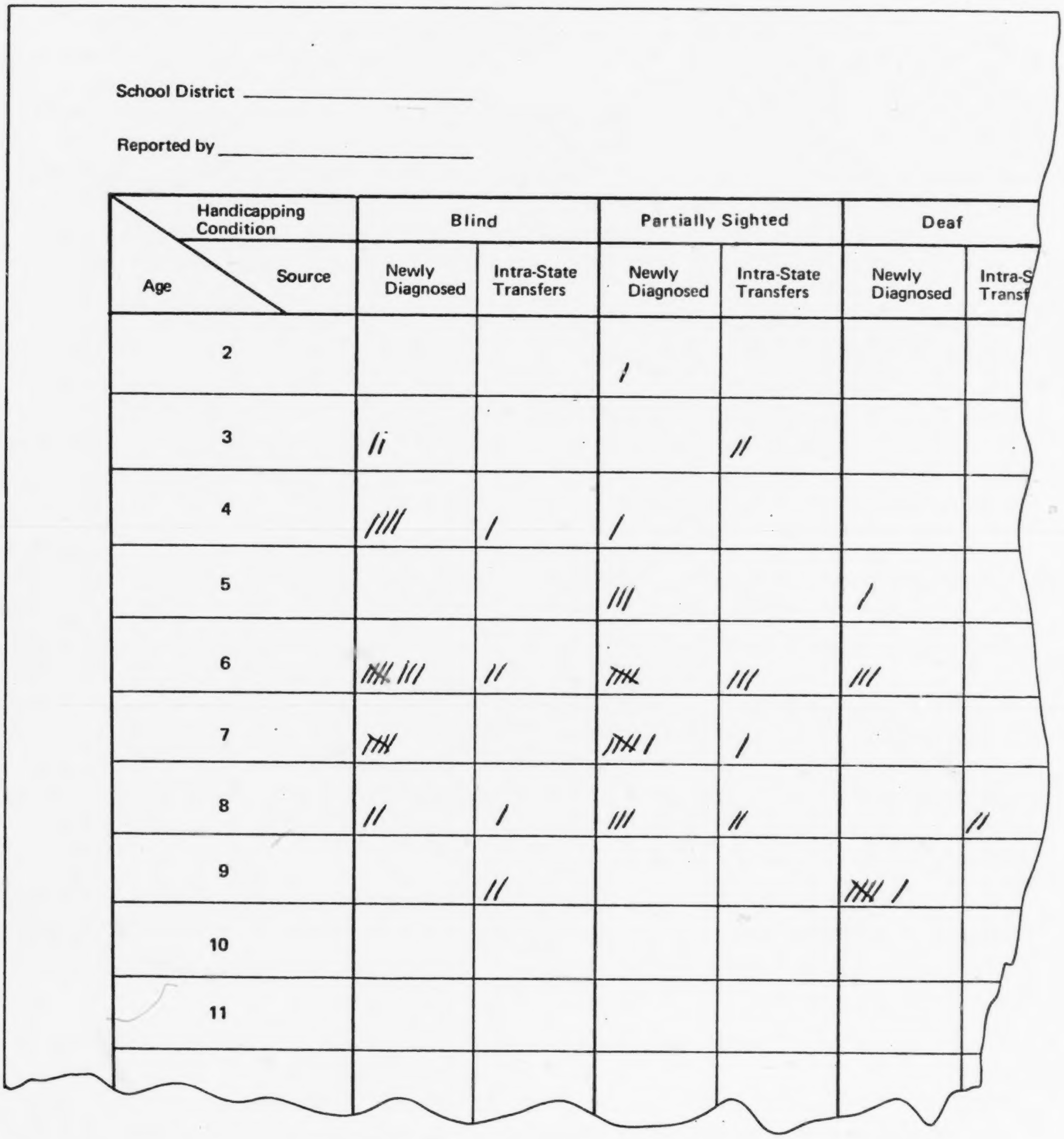
A request for the type of the unit, e.g., full time class, resource room, etc., could also be made as shown in Figure 2.

It is recommended that the remaining data for the data summary system be collected on new simple matrix forms rather than on modifications of other currently existing report forms. In order to collect waiting list, entrant, and attrition data using the "Principal's Annual Report", major modifications to the form and to the attendance log codes would be required to ensure that such data are categorized meaningfully for special education planning and evaluation. Waiting list data for locally operated special education programs should be requested from the Supervisor of Special Education (or his equivalent) in each school district at the same time as the enrollment data is requested. A simple matrix form, in which each row is a single year of age and each column is a handicapping condition, could easily be designed to collect waiting list data from each local school district. These matrix forms, or minor modifications of them, could also be used to collect enrollment and waiting list data from the schools for the blind and the deaf and, on a voluntary basis, from the other state operated and privately operated special education programs. These matrix forms would be similar in design to that presented in Figure 3 as an example of a form to report new entrants.

Similar matrices should be used by all data sources to report entrants to and attritions from the total identified handicapped child population. These data summary matrices should have subcategories within each handicapping condition: subcategories for source (newly diagnosed and intrastate transfer) in the entrants matrix form and subcategories for reason (return to regular education, moved, etc.) in the attrition matrix form. An example of a simple matrix form, one for reporting new entrants, is presented in Figure 3. Blank copies of these matrix forms can be used, by the local districts and other data sources, in a hash-mark fashion to record the data during the year. The totals could then be transferred to a new set of matrix forms for transmittal to the Division of Special Education.

The timing of the data flow in a data summary type of system is very important. All enrollment data and personnel employment data should continue to be reported as of the beginning of the school year, e.g., as of October 15. All waiting list data should also be reported at that time.

There are two alternatives to the timing of the entrant and attrition data reports. The reports can be made once a year or periodically during the year. Using the foregoing report deadline, if the former schedule is selected, the reports should be completed as of October 15 and should contain the data for the previous school year—thus, an attrition report sent to the Division of Special Education on October 15, 1971, would contain the number of children that had attritted from the identified handicapped child population during the year, October 15, 1970 to October 14, 1971. If the latter schedule is selected, the final periodic reports should be sent to the Division of Special Education by October 15 and should reflect all entrants and attritions since the previous periodic reports so that entrants and attritions occurring during the summer will be recorded and reported.



School District ____________________

Reported by ______________________

Handicapping Condition / Age	Blind		Partially Sighted		Deaf	
Source	Newly Diagnosed	Intra-State Transfers	Newly Diagnosed	Intra-State Transfers	Newly Diagnosed	Intra-S Transf
2			/			
3	//			//		
4	////	/	/			
5			///		/	
6	𝍸 ///	//	𝍸	///	///	
7	𝍸		𝍸 /	/		
8	//	/	///	//		//
9		//			𝍸 /	
10						
11						

FIGURE 3. MATRIX FORM FOR COLLECTING LOCAL DISTRICT DATA ON ANNUAL ENTRANTS TO THE HANDICAPPED CHILD POPULATION

The data summary matrix forms recommended can easily be keypunched and then tabulated on the computer in the Division of Computer Services. The keypunching and data processing of the new special education information request matrices will be very similar to that currently performed for the existing "Census of Exceptional Children by Type of Handicap" matrices.

VIII. RESOURCE REQUIREMENTS—MANPOWER

In order to implement the recommended data summary system in Kentucky, it is estimated that 2 man-weeks will be required to modify the existing "Annual Report on Classroom Units for Exceptional Children" forms and to design the new data collection instruments (the simple matrix forms). Additionally, 3 man-weeks will probably be required to obtain the Superintendent of Public Instruction's approval of the new and revised forms and to make the necessary arrangements with the Division of Pupil Personnel Attendance and Accounting for the printing and distribution of the forms. Approximately 6 man-weeks of a systems analyst/programmer's time will be needed to accomplish the required systems design and computer programming and debugging for the data summary system.

The task of coordinating with the local districts (i.e., training local district personnel to fill out the new forms, engendering local support for the information system, and ensuring completeness and validity of the reported data) should be done by the staff of the Division of Special Education, because they are the only state level personnel familiar enough with the situations in the local districts to make accurate judgments about the completeness and validity of the data, especially the initial data received. This task could probably be assigned part-time to all the staff members and is estimated to require approximately 4 man-months of effort over a 2-3 year period. After the major effort to initiate the system, these staff members will be the only state level personnel that can make continuing assessments of data reliability, a task that will require very little effort once the data collection system and its forms become familiar to the local level personnel. This system maintenance effort will require about 2 1/4 man-months of combined effort annually.

The Director of the Division of Special Education, by virtue of her position and influence, is probably the only person who can arrange for the cooperation of the programs operated by the Department of Mental Hygiene and who can approach the privately sponsored programs. The amount of time that this will take is dependent upon the attitudes and the organizational structures of all the agencies and organizations involved.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Mr. Theodore Jungreis, during the week of 8 October 1969 were:

Dr. Stella A. Edwards	Director, Division of Special Education, Bureau of Instruction, State Department of Education
Mr. Thomas H. Robeson	Assistant Director, Division of Special Education
Mr. Lee Tyler	Director, Division of Pupil Personnel Attendance and Accounting, Bureau of Pupil Personnel Services, State Department of Education
Mr. Lawrence Stemper	Title I, ESEA, Bureau of State Federal Relations, State Department of Education
Mr. L.P. Howser	Superintendent, Kentucky School for the Blind (Louisville), Bureau of Instruction, State Department of Education
Mr. Jack Brady	Superintendent, Kentucky School for the Deaf (Danville), Bureau of Instruction
Mrs. Betty Bright	Principal, Frankfort State Hospital and School, State Department of Mental Health
Miss Angela Di Orio	Principal, Central State Hospital and School (Louisville), State Department of Mental Health
Mrs. Mary Warman	Principal, Outwood State Hospital and School (Dawson Springs), State Department of Mental Health

X. CURRENT REPORT FORMATS

- Sample pages from Annual Report on Classroom Units for Exceptional Children
    1. Speech Correction Unit Report
    2. Special Classes for Crippled and Special Health Problems
    3. Special Classes for the Trainable Mentally Retarded
- Principal's Annual Report—Exceptional Children's Classes and explanation of attendance log codes
- School Census Report
- Handicapped Census Card

Return 1 copy to
Div. of Sp. Ed.,
Dept. of Educ.,
Frankfort, Ky..

FORM EC-9
(Rev. 3/68)

ANNUAL REPORT ON CLASSROOM UNITS
FOR EXCEPTIONAL CHILDREN
SPEECH CORRECTION UNIT REPORT

SCHOOL DISTRICT ______________________ SCHOOL YEAR ______________________

UNIT ALLOCATION ______________________ SPEECH CORRECTIONIST ______________________

CERTIFICATE TYPE AND EXPIRATION DATE ____________ SOCIAL SECURITY NO. ______________

WEEKLY SCHEDULE BY SCHOOL(S)

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:00					
8:30					
9:00					
9:30					
10:00					
10:30					
11:00					
11:30					
12:00					
12:30					
1:00					
1:30					
2:00					
2:30					
3:00					

(REPRODUCED FROM STATE FORM)

NAME OF SCHOOL	CASE LOAD	CASE LOAD BY GRADE	
1.		1st	
2.		2nd	
3.		3rd	
4.		4th	
5.		5th	
6.		6th	
7.		7th	
8.		8th	
TOTAL		High School	

______________________________ (SUPERINTENDENT OF SCHOOLS)

______________ (DATE)

Return 1 copy to
Div. of Sp. Ed.,
Dept. of Educ.,
Frankfort, Ky.

ANNUAL REPORT ON CLASSROOM UNITS FOR EXCEPTIONAL CHILDREN
SPECIAL CLASSES FOR CRIPPLED & SPECIAL HEALTH PROBLEMS

FORM EC - 12
(Rev. July - 1964)

SCHOOL DISTRICT__________ SCHOOL YEAR________ TEACHER__________

CERTIFICATE TYPE AND EXPIRATION DATE__________ SOCIAL SECURITY NO.________

CLASS LOCATION__________ UNIT ALLOCATION__________

NAME OF CHILD	TYPE OF HANDICAP	GRADE LEVEL	AGE	MEDICAL CERTIFICATION ON FILE	
				YES	NO
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					

(REPRODUCED FROM STATE FORM)

Signed: __________
Superintendent of Schools OR
Supervisor of Spec. Education

Date: __________

Return 1 Copy To:
Division of Special Education
State Department of Education
Frankfort, Kentucky 40601

FORM EC-15
(Rev. June, 1969)

ANNUAL REPORT ON CLASSROOM UNITS FOR EXCEPTIONAL CHILDREN
SPECIAL CLASSES FOR THE TRAINABLE MENTALLY RETARDED

SCHOOL DISTRICT ______________________ SCHOOL YEAR ______________

TEACHER (Indicate Miss, Mrs., or Mr.) ______________________________

CERTIFICATE TYPE AND EXPIRATION DATE ______________ SOCIAL SECURITY NUMBER ______________

APPROVED TEACHER: (Check one)

(1) Certificate Has Been Endorsed to Teach Trainable Mentally Retared for 1968-69 ______ YES ______ NO
Applied for: ____________ Date Applied For: ______________

(2) Teacher Has Been Approved to Teach Trainable Mentally Retarded Under State Board of Education Regulation 54.350 . . . . ______ YES ______ NO

---

1. School (Building Name - Location, Town) ______________________

2. If not in public school building, give na ______________________

   A. Have these facilities been a ivision of Buildings and Grounds, Department of Education . . . . ______ YES ______ NO

   B. Give date of this a ______________________

(REPRODUCED FROM STATE FORM)

3. Length of school day -- 6 Clock Hours ______ -- 4½ Clock Hours ______

   If less than 6 clock hours, has approval by the Division of Special Education been given for the current school year ______ YES ______ NO

4. Number of pupils enrolled in this class . . . . ______________

5. Chronological age range (Youngest to Oldest) . . . . ______________

6. Intelligence Quotient range (Lowest to Highest) . . . . . ______________

7. The Stanford-Binet, 1937 or 1960 Revision, or the Wechsler Intelligence Scale for Children, has been administered to each pupil . . . . ______ YES ______ NO

   Administered By: ______________________________________
   (NAME AND POSITION)

8. If it has not been possible to meet State Board of Education Regulations in regard to testing, indicate the number of pupils who have not been tested and explain arrangements that have been made to administer these tests:

____

____

(OVER)

SUMMARY OF STATE BOARD OF EDUCATION REGULATIONS AND ADMINISTRATIVE POLICIES CONCERNING APPROVAL OF SPECIAL CLASSES FOR THE TRAINABLE MENTALLY RETARDED

1. Approved Teacher

2. Approved Housing: Classes for trainable mentally retarded should be housed in an elementary or secondary school, dependent upon the age range of the pupils. The location of a classroom in other facilities must be approved by the Division of Special Education and the Division of Buildings and Grounds, State Department of Education.

3. Age Range: 6 - 21 years (It is recommended that the range of ages for a single class not exceed six (6) years.)

4. Class Size: (Membership) 6 - 12 children per teacher

5. IQ Range: 35-50 as determined by individual intelligence examination. (A five point leeway above or below 35-50 may be accepted upon the written recommendation of the local Admissions and Release Committee. This recommendation shall be filed in the individual student's cumulative folder.)

6. Screening Considerations:

   (a) Has he the capacity to learn self-care and social adjustment in family and neighborhood?

   (b) Can he dress and feed himself; is he toilet trained?

   (c) Can he follow simple directions?

   (d) Can he move about the schoolroom independently?

   (e) Is his language and speech developed so that he can communicate his needs to others?

- - - - - - - - - - - -

Certification of Superintendent:

I hereby certify that the information given on this form is accurate.

Signed: ______________________________
(Superintendent)

Date: ______________________________

1 Copy - Prin.
2 Copies - Supt.

PRINCIPAL'S ANNUAL REPORT -- EXCEPTIONAL CHILDREN'S CLASSES

Form RR-20b

School ______________________ School District ______________________

USED IF THERE IS MORETHAN ONE SP CLASS IN SCHOOL

IF ONLY ONE USE COLUMN 4 ON YELLOW FORM

Days Taught	Special Classes: Crippled	Partially Seeing	Hard of Hearing	Deaf	Mentally Handicapped Educable	Mentally Handicapped Trainable	Neurologically Impaired	Emotionally Disturbed	To
1. Number of Teachers									
2. Original Entries: E1									
E2									
Total									
3. Re-Entries: R1									
R2									
R3									
R4									
R5									
R6									
R7									
Total									
4. Withdrawals: W1									
W2									
W3									
W4									
W5									
W6									
W7									
W8									
W9									
W10									
W11									
Total									
5. Membership End of Year: Boys									
Girls									
Total									
6. Aggregate Days Attendance: Trans. (T1)									
Trans. (T2)									
Non-Trans.									
Total									
7. Aggregate Days Absence: Trans. (T1)									
Trans. (T2)									
Non-Trans.									
Total									
8. Aggregate Days Membership: Trans. (T1)									
Trans. (T2)									
Non-Trans.									
Total									
9. Number of Pupils Promoted									
10. Number of Pupils Retained									

(REPRODUCED FROM STATE FORM)

______________________ Principal ______________________ Date

(See reverse side for instructions) 26 D17-20

FORM RR-12
REV. 4-15-69

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF EDUCATION
BUREAU OF PUPIL PERSONNEL SERVICES
DIVISION OF PUPIL PERSONNEL ATTENDANCE AND ACCOUNTING

SCHOOL CENSUS REPORT

...........DISTRICT NUMBER ....SCHOOL DISTRICT

SECTION 159.260, KENTUCKY REVISED STATUTES: REPORT OF CENSUS TO SUPERINTENDENT OF PUBLIC INSTRUCTION.-THE DIRECTOR OF PUPIL PERSONNEL OF EACH SCHOOL DISTRICT SHALL, ON OR BEFORE JUNE 1 EACH YEAR, PREPARE A REPORT SHOWING THE NUMBER OF CHILDREN RESIDING IN THE SCHOOL DISTRICT OR DISTRICTS THAT HE SERVES WHO WILL, ON JULY 1 FOLLOWING, BE BETWEEN THE AGES OF SIX AND EIGHTEEN YEARS. THE REPORT SHALL LIST THE CHILDREN ACCORDING TO THE SCHOOLS TO WHICH THEY BELONG IN EACH SCHOOL DISTRICT. THE REPORT SHALL BE MADE ON FORMS FURNISHED BY THE STATE BOARD OF EDUCATION AND SHALL CONTAIN ANY OTHER INFORMATION REQUIRED BY THE SUPERINTENDENT OF PUBLIC INSTRUCTION. IT SHALL BE SWORN TO BEFORE A NOTARY PUBLIC AS BEING A CORRECT STATEMENT AS SHOWN BY THE CENSUS ON FILE IN THE OFFICE OF THE DIRECTOR OF PUPIL PERSONNEL. THE ORIGINAL AND A DUPLICATE COPY OF THE REPORT SHALL BE FILED WITH THE DISTRICT BOARD OF EDUCATION. THE BOARD SHALL MAIL THE ORIGINAL TO THE SUPERINTENDENT OF PUBLIC INSTRUCTION AND RETAIN THE COPY IN ITS OFFICE.

CENSUS DISTRICT	White		Colored		Total
	Male	Female	Male	Female	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
Total					

(REPRODUCED FROM STATE FORM)

FORMULAS AND CODES

(To Be Used in Register)

(REPRODUCED FROM STATE FORM)

DAYS TAUGHT — The actual number of d
ered. Exclude holidays
and profession
month for which schools were
closed.

ORIGINAL ENTRIES — E1 — A pupil enrolled for the first time in the United States in either a public or non-public school during the current school year.

E2 — A pupil previously enrolled for the current school year in a public or non-public school in another state and who has not previously enrolled in Kentucky.

RE-ENTRIES — All pupils received from other schools in Kentucky. In every case, these pupils have already been recorded as E1's or E2's in schools in Kentucky this year. Types of re-entries are:

R1 — A pupil received from another room in the same school.
R2 — A pupil received from another public school in the same public school district.
R3 — A pupil received from a non-public school in the same public school district.
R4 — A pupil received from another public school in Kentucky but outside this public school district.
R5 — A pupil received from a non-public school in Kentucky but outside this public school district.
R6 — A pupil re-entering the same room after withdrawal or discharge, and who has not entered any other school during the intervening period.
R7 — A pupil received from a school in another state after having been enrolled during the current year as an E1 or E2 in Kentucky.

WITHDRAWALS — For the current year, all pupils who permanently severed their connections with classes, grades, and/or schools. Types of withdrawals are:

W1 — A pupil promoted or transferred to another room in the same school.
W2 — A pupil promoted or transferred to another public school in the same public school district.
W3 — A pupil transferred to a non-public school in this public school district.
W4 — A pupil transferred, without change of residence, to a school outside this public school district.
W5 — A pupil moved out of this public school district.
W6 — A pupil who became 16 and dropped out.
W7 — A pupil excused from school because of mental or physical disability.
W8 — A pupil withdrawn because of death.
W9 — A pupil graduated from high school.
W10— A pupil discharged.
W11— A pupil excused from school because of marriage.

MEMBERSHIP — Membership in any classroom equals original entries plus re-entries minus losses (E1's + E2's + R's — W's).

CENSUS OF EXCEPTIONAL CHILDREN BY TYPE OF HANDICAP

SECTION 1 - TYPE OF HANDICAP (Write number of pupils in appropriate column)													SECTION 2 - ENROLLMENT (Number in each group)							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
AGE	MENTALLY RETARDED EDUCABLE	MENTALLY RETARDED TRAINABLE	EMOTIONALLY DISTURBED	NEUROGICALLY IMPAIRED	CRIPPLED	BLIND	PARTIALLY SEEING	DEAF	HARD OF HEARING	SPEECH DEFECT	OTHER	TOTAL	PUBLIC	PRIVATE	PAROCHIAL	STATE SCHOOL OR INSTITUTION	COLLEGE LABORATORY SCHOOL	FEDERAL DEPENDENT SCHOOL	NOT ENROLLED	TOTAL
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				
TOTAL																				

(REPRODUCED FROM STATE FORM)

NOTE: Each age total in column 13 must equal each age total in column 21. For example: If column 13 shows 9 for the six year olds; column 21 will also show 9 for six year olds, etc.

NAME OF CHILD DATE OF BIRTH FORM EC-2 HANDICAPPED CENSUS CARD

RACE	LAST NAME	FIRST	MIDDLE	MO.	DAY	YEAR	SCHOOL DISTRICT	CHECK ONE
SEX								ENROLLED NON-ENROLLED

STREET AND NUMBER, ROAD OR FARM	CENSUS DISTRICT	POST OFFICE	DATE	SCHOOL ATTENDING	GRADE	DATE ENTRY	ENROLLED	NON-ENROLLED

FULL NAME OF FATHER		OCCUPATION	LIVING	DEAD
MOTHER-FIRST NAME	MAIDEN NAME	LAST NAME	LIVING	DEAD

FULL NAME OF GAURDIAN OR PERSON CHILD LIVES WITH

CHECK RELATIONSHIP OF PERSON WITH WHOM CHILD LIVES:

PARENTS	MOTHER	FATHER	GUARDIAN	GRAND-PARENTS	UNCLE	AUNT	BROTHER	SISTER	BOARDS	OTHER:

AUTHORITY FOR BIRTH-DATE (CHECK)

A. BIRTH CERTIFICATE
B. BAPTISMAL CERTIFICATE
C. BIBLE RECORD
D. PARENT STATEMENT
E. GUARDIAN STATEMENT

NAME AND LOCATION OF SCHOOL OUTSIDE OF THIS DISTRICT FROM WHICH PUPIL CAME:	MO.	DAY	YEAR
NAME AND LOCATION OF SCHOOL OUTSIDE OF THIS DISTRICT TO WHICH P	MO.	DAY	YEAR

(REPRODUCED FROM STATE FORM)

CHILD'S DISABILITY

(Check MAJOR defect)
- Mentally Retarded Educable
- Mentally Retarded Trainable
- Emotionally Disturbed
- Neurogically Impaired
- Crippled
- Blind
- Partially Seeing
- Deaf
- Hard of Hearing
- Speech Defect
- Other

(Check)
- Is physically able to attend school
- Not physically able to attend school
- Is mentally able to do school work
- Not mentally able to do school work

TREATMENT

(Check)
- Is receiving
- Not receiving
- By private physician
- By clinic
- Have no information

REMARKS:

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
KENTUCKY

			LOCAL PUBLIC SCHOOL PROGRAMS			STATE OPERATED PROGRAMS			PRIVATE SCHOOL DATA
DATA ELEMENTS			**CURRENT STATUS**	**METHOD OF DEVELOPMENT**	**SOURCE OF DATA**	**CURRENT STATUS**	**METHOD OF DEVELOPMENT**	**SOURCE OF DATA**	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	**ENROLLED**	**AGE**	Available in tabulated form	Add simple two-row matrix to existing report forms	Classroom teacher or therapist	Not available	Design simple matrix forms	Person responsible for special education at each location	Data required from accredited schools about total enrollment into and out of general enrolled population—for more detiled data information could be requested to be transmitted, on a voluntary basis, on modifications of the simple matrix forms used by local school districts
		HANDICAPPING CONDITION				Informally reported			
		EDUCATION PROGRAM	Not available			Not available			
	ON WAITING LIST	**AGE**	Not available	Design simple matrix form	Supervisor of Special Education or equivalent	Not available			
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	**NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION**	**AGE**	Not available	Design simple matrix forms	Supervisor of Special Education or equivalent	Not available	Design simple matrix forms	Person responsible for special education at each location	
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	**AGE**	Not available						
		HANDICAPPING CONDITION	Available for enrolled population						
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	**AGE**	Not available						
		HANDICAPPING CONDITION	Available for attritions of enrolled population from the school district						
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Undetermined	Investigate their existence in other state agencies (e.g., Department of Finance) or universities					
DATA USED TO SIMULATE SPECIAL EDUCATION	**EDUCATION PROGRAM MIX TRENDS**		Available as defined by legislation, policy, and planning	Not applicable	Staff of Division of Special Education	Not transmitted to Division of Special Education	Request information about individual program policy	Person responsible for special education at each location	Request voluntary information about individual school policy
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	**TARGET GROUP**							
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available	Not applicable	Division of Pupil Personnel Attendance and Accounting	Not transmitted to Division of Special Education	Not transmitted to Division of Special Education		Request voluntary information from each school

LOUISIANA STATE ANALYSIS REPORT
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VIII. RESOURCE REQUIREMENTS—MANPOWER D18-10
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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

LOUISIANA STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs on the basis of its individual educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, educational program mixes, child participation rates, or any combination of these variables.

Following the development of the model, each of the 50 state special education agencies was visited in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the potential for utilization of this model of state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The capability and desire of the special education staff to utilize the model.

This report presents the findings of the survey in the State of Louisiana and contains recommendations pertaining to the establishment of information flow procedures for model utilization and to the improvement of general information availability for special education program management. The status of data development is summarized in Table 1 at the end of this report.

II. SUMMARY

The availability of information required as inputs to the Manpower Requirements Projection Model is very limited in Louisiana, especially for public schools. Some public school data does exist at state level but is not in usable form, while for other data categories, collection devices are established which could, with varying degrees of modification, provide some of the required data elements.

The data for the state programs, i.e., institutions, is available to a large extent on a computerized basis. Private school data are not available and the possibilities of their development are viewed with pessimism at the state level.

The most crucial constraint to implementation of the Manpower Requirements Projection Model is the lack of computer capability. Currently there is no automatic or electronic data processing capability within the Department of Education. Furthermore, there is a departmental policy which does not permit the use of any such capability in any other state agency or from any other source, including commercial service bureaus. This policy was explained by the Director of Administration and Research, Division of Administration and Finance, who has the responsibility for studying computer services.

Moreover, it was his estimate that such computer capability would not be developed in the department for 3 to 5 years and that when it was developed, the numerous programs already identified and in some instances developed would receive priority consideration.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The primary state educational agency in Louisiana is the Department of Education, headed by the State Superintendent of Public Education, who reports to a State Board of Education (see Figure 1) composed of twelve members including the State Superintendent. The Board has the responsibility for establishing the policies for public schools and the following state special schools.

a. Louisiana State School for Blind Negroes

b. Louisiana State School for Deaf Negroes

c. Louisiana State School for Spastic Children

d. Louisiana State School for Blind

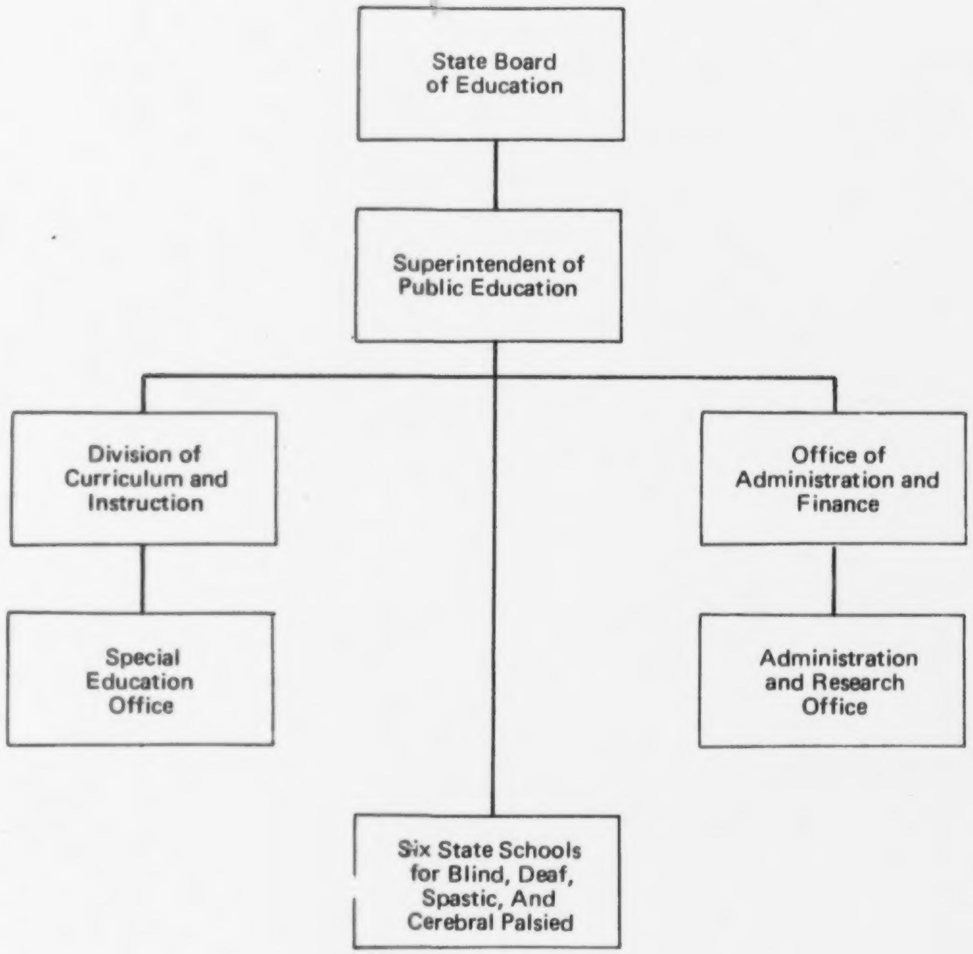
State Board of Education
Superintendent of Public Education
Division of Curriculum and Instruction
Office of Administration and Finance
Special Education Office
Administration and Research Office
Six State Schools for Blind, Deaf, Spastic, And Cerebral Palsied

FIGURE 1. LOUISIANA STATE DEPARTMENT OF EDUCATION (AGENCIES RELEVANT TO MANPOWER REQUIREMENTS PROJECTION MODEL)

e. Louisiana State School for Deaf

f. Northeast Cerebral Palsy.

The Special Education Office, Division of Curriculum and Instruction, in conjunction with the parish or city school boards, has the responsibility for developing, encouraging, and improving special educational and training facilities, services, and classes for exceptional children in the public schools of Louisiana in order to minimize, insofar as possible, the educational or training limitations which result from the following handicapping conditions.

- Educable mentally retarded
- Trainable mentally retarded
- Slow learners
- Deaf or hard of hearing
- Blind or partially sighted
- Speech impaired
- Cerebral palsied
- Emotionally disturbed.

The responsibilities of the Special Education Office make it the logical source of data for locally sponsored programs.

The Administration and Research Office, Division of Administration and Finance, is the only potential state source of data on nonpublic special education programs. Also, this office may have the responsibility for the computer capability when it is developed as discussed in Section V.

The Divisions of Mental Retardation and Mental Illness, both within the Department of Hospitals, are concerned with residential and day care programs for the mentally retarded and mentally ill at the following institutions.

a. Belle Chasse State School

b. Hammond State School

c. Leesville State School

d. Pinecrest State School

e. Reston State School.

The Mental Retardation Division seeks to fill the gap between locally sponsored services and total community needs by providing preschool services for trainable mentally retarded and educable mentally retarded. In addition, it provides services to those below the trainable mentally retarded level as well as for other mentally retarded who cannot be served by local education agencies.

IV. DATA ELEMENT EVALUATION

A number of specific data elements are necessary for the use of the Manpower Requirements Projection Model. The information which these data elements provide may also be very useful to the Office of Special Education for operational analyses. These data elements, their development, and their potential sources are discussed in the following paragraphs and summarized in Table 1 at the end of this report.

Enrollment

The enrollment information required by the model includes three data elements. The number of enrollees is needed by type of handicap, educational program, and single year of age.

The following discussion on enrollment data is given in terms of local, state, and private special education programs.

Local Programs. Data on locally sponsored special education programs that are needed for the requirements model are not now available in complete form, but a good basic data collection instrument is already in existence, i.e., the Special Education Teacher-Class Report (Section X, p. D18-14). These reports can supply the number of children enrolled in special education classes according to handicapping condition, education level, and single year of age. However, the type of educational program, e.g., cooperative special class and supplemental instruction, is also needed, and this can easily be incorporated. These reports, numbering about 800 in 1968-69, are currently not being tabulated by age due to the amount of clerical time required. A simple age summary or automated processing could be incorporated to ease this problem.

In addition, there is a separate reporting form in existence that is used by speech and hearing therapists (Section X, p. D18-15). Assuming that all speech services are in one type of program, then the only modification needed is a breakout of the sutdents by age.

State Programs. The enrollment data elements for state sponsored programs at the institutions exist and are readily available from the Mental Retardation Division. Then data is recorded on punched cards and the retrieval of the data is computerized. No problem was apparent in the provision of the required enrollment data.

Private Programs. Although some summary statistics are available, the required breakdown of enrollment data on handicapped children in private schools is not available at the state level. Twenty such schools were identified in 1966-67; the total number of enrollees was 849.

Waiting List

The data available at the state level on the number of handicapped children needing but not receiving special education services is limited to those awaiting services in state sponsored programs, i.e., the institutions. In general, there is no data available for public and private schools.

The diagnostic data are developed and available for public school children to the extent discussed in the next subsection. This will provide the foundation for reporting the age and diagnosis, i.e., type of handicap, to the state level.

The waiting list data for the institutions is also in a computerized data bank and readily available by age and handicap from the Mental Retardation Division.

Children Moving Into and Out of the Identified Handicapped Child Population

The model requires three specific data elements in this category: the newly diagnosed in need of special education, intrastate transfers, and attrition from the identified population. In each case, the age and handicapping condition must be known to project the size of the target group.

Since state law requires a child to be diagnosed in order to be eligible for special education, and since the 11 special education diagnostic centers throughout the state are responsible for approximately 95 percent of the referrals, the data on the newly diagnosed population would be reasonably complete. The report form used by the diagnostic centers could be modified to supply both age and handicap. The sources for remaining part of the data on the newly diagnosed population are the parish diagnostic teams, which are primarily in the Northern parishes of the state. The information on handicapped children transferring intrastate or withdrawing from the program is currently provided by the Principal's Monthly Report and the Principal's Session Report (Section X, pp. D18-16 and D18-17). Again, the age and handicap are not currently supplied by the form, necessitating modification if the data needs of the model are to be fulfilled.

General Child Population Projections

The Louisiana State government has recognized the need for projections of state population, by age, for those under 21 years old and has contracted with Louisiana Polytechnic Institute (LPI) in Ruston, Louisiana to prepare the projections.

Prior to this contractual arrangement the Tabulation and Analysis Section, Louisiana State Board of Health, prepared projections for internal use, but not for publication. These figures were relatively accurate, but the revised estimates that are prepared by LPI will be superior in the opinion of state personnel.

Projected Mix of Educational Programs

The Division of Special Education will be able to estimate the future mix of educational programs on the basis of past trends in enrollment in the various programs and the policy and program emphasis envisioned for the future.

Teacher/Pupil Contact Ratios

The allotment of teachers is expressed by Act No. 487 of Louisiana Legislation in terms of a minimum and maximum number of pupils per teacher or therapists. The ratios are solely a function of the type of handicap.

Special Education Personnel

The number of special education personnel at the local level can be obtained from the Special Education Teacher-Class Reports. This report can be modified to obtain the type of certification for all instructional personnel. The number and type of special education personnel employed in state-sponsored programs can be obtained from the institutions or the Mental Retardation Division with relative ease. Similar data for nonpublic programs is not currently available and its collection is not considered feasible.

V. PROCESSING POTENTIAL

There is no automatic or electronic data processing capability within the Louisiana Department of Education. In addition, there is a departmental policy which does not permit the use of any other processing capability in any of the other state agencies. The department is not permitted to rent or buy processing capability from service bureaus outside of state government.

These policies were explained by the Director of Research and Administration. He further stated that the Department did not expect to have its own computer installation for 3 to 5 years. When the educational computer installation does become a reality, the programs identified and in some cases available, e.g., school attendance reporting, will have priority. Thus the expectation for implementation in Louisiana of the Manpower Requirements Projection Model in the forseeable future is negligible.

VI. ADDITIONAL FACTORS

A system of 11 special education centers has been built throughout the State of Louisiana. The centers provide the diagnostic services for nearly all handicapped children. The remaining handicapped are diagnosed by parish teams. Thus the centers should provide an excellent basis for developing incidence and prevalence rates and diagnostic and referral data.

Because of the limited size of the special education staff, there are backlogs in the tabulating and analyzing of data collected from the local school systems. Any increase in demands for data collection and handling such as those generated by the model would require added support for the special education staff. The support required includes automated processing, as previously discussed, and the additional resources detailed in Section VIII.

VII. RECOMMENDATIONS

The following recommendations would, upon implementation, provide for the flow of data elements necessary to the utilization of the Manpower Requirements Projection Model and improve the quality of information available for special education program management.

To achieve basic implementation of this model in the State of Louisiana, it is recommended that:

1. Access to a computer capability including a memory of 32K or better and a FORTRAN compiler be secured.
2. The Special Education Teacher-Class Report be modified to incorporate the type of educational program for the enrollees, a summary of calendar ages to facilitate processing, and an indication of the type of teacher or certification.
3. The Speech and Hearing Therapists Report be modified to incorporate the age of the students and educational program if it varies among students reported on this form.
4. The waiting list data, including single year of age and type of handicap, be developed at the state level by designing a new form for use by local school superintendents.
5. The report form used by the diagnostic centers and the Principal's Session Report be modified to include the age and handicap data for those children entering or withdrawing from the special education program.
6. Statewide prevalence rates be developed for those exceptionalities recognized in Louisiana. Using prevalence rates is an interim method of estimating the total handicapped child population; these rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated

with actual data. Such validation can be done by collecting appropriate data, including the referral and diagnostic data, and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternate methods of validating these rates.

7. The mix of enrollments by educational program or placement, e.g., number enrolled in home instruction versus special classes, be projected by the Special Education Office on the basis of historical enrollment patterns and policy changes or other factors that would affect the state's emphasis on educational programs in the future.

To achieve improvement in the quality and quantity of information developed, the following considerations are offered.

1. The existing and proposed forms will provide the data required by the Manpower Requirements Projection Model. However, the reliability and consistency of the data may be improved if the personnel completing the modified or proposed forms have some additional guidance and reinforcement. This may be accomplished in several ways:
    a. Explain the need and purpose of the data in addition to defining the terminology.
    b. When visiting the local districts and conducting workshops, discuss the forms and their use. Also discuss the model and its benefit to local level of special education as well as to the state level.
    c. Provide feedback to the local districts on results of data collected, including summaries and special studies.

The recommendations and considerations offered, if implemented, should result in successive improvements in the completeness and the accuracy of the data elements over time. Once implementation is started, validity of the data can be achieved within a few years. Later documents pertaining to this project contain additional information about methods which may be used to estimate some of the data elements until a good information flow is developed and validated.

VIII. RESOURCE REQUIREMENTS—MANPOWER

The Special Education Office will require assistance in implementing the recommendations made in Section VII. In addition to the cooperation and assistance of the various agencies at the state and local level which will be involved in implementing and maintaining or operating the Manpower Requirements Projection Model, systems analysis capability will be required on both phases.

This talent is required at the time of implementation to aid in modifying and designing keypunchable forms and in programming and designing the system. In addition, the systems analyst(s) should assist in training state and local personnel, writing procedures, and coordinating technical aspects among the various groups exchanging data and results. A systems analyst will be required for approximately 3 man-months over a 2-year period to effect the recommendations necessary for the implementation phase. In addition the services of the special education staff for 3 man-months, forms designer for 1 man-month, and a programmer for 1 man-month will be required.

During the operation of the system, i.e., once system implementation is achieved, the systems analysis capability will again be required to validate the systems design, perhaps to refine and improve the data design, and to update the training of the state special education staff. This effort will require approximately $1\frac{1}{2}$ man-months of combined effort per year.

The source of this systems analysis talent for the implementation phase will have to be an addition to the staff or external personnel. For the maintenance phase, the internal education processing group may be capable and willing to provide the systems analysis service. If not, additional staff or personnel from an external source will again be required.

IX. PERSONS INTERVIEWED

The persons interviewed by the Operations Research, Inc. (Leasco) representative, Mr. Joe Kelly, during the October visit to Louisiana were:

Mr. William Dodd	State Superintendent of Public Education
Mrs. Faye P. McCormick	Director, Special Education, Division of Curriculum and Instruction, State Department of Education
Mr. Albert Wright	Coordinator of Research, Special Education, Division of Curriculum and Instruction, State Department of Education
Mr. Norman H. Edwards	Director, Administration and Research, Division of Administration and Finance, State Department of Education
Dr. Otto Estes	Director, Division of Mental Retardation, State Department of Hospitals
Mr. James S. Rutledge	Superintendent, G.B. Cooley Hospital for Retarded Children

The persons interviewed in the course of the pilot testing of the model concept by Miss Beverly Johns and Mr. Robert Bruce during their February 1969 visit to Louisiana were:

Mrs. Faye P. McCormick	Division of Curriculum and Instruction, Director for Special Education, State Department of Education
Mr. Albert Wright	Coordinator of Research, Special Education, Division of Curriculum and Instruction, State Department of Education
Dr. Otto Estes	Director, Division of Mental Retardation, State Department of Hospitals
Mr. William Dodd	State Superintendent of Public Instruction

Mr. Frederick Tuton	Psychologist, Special Education, Diagnostic Center, Louisiana State University
Mr. John Lemasson	Tabulation and Analysis Section, Louisiana State Board of Health

X. CURRENT REPORT FORMATS

Included in this section are samples of the existing and proposed forms in Louisiana for collecting information that is pertinent to the needs of the Manpower Requirements Projection Model as described in the preceeding sections. The existing forms included are:

	Form Name	Agency
1)	Special Education Teacher-Class Report	Special Education
2)	Report of Speech and Hearing Therapists	Special Education
3)	Principal's Session Report	School Attendance Section

Submit In Duplicate to:

DIRECTOR OF SPECIAL EDUCATION
STATE DEPARTMENT OF EDUCATION
BATON ROUGE, LOUISIANA

SPECIAL EDUCATION TEACHER-CLASS REPORT

SCHOOL YEAR:

Parish

Teacher

Certified Yes No

Certificate No.

School

Teacher's Home Address Street or Box No.

City

State

School Address

This Class ☐ Is New This Year ☐ Operated Last Yr.

Level (Check One Only) ☐ Elem. ☐ Jr. High ☐ Sr. High

Source of Funding–This Class Only

☐ Federal ☐ State ☐ Local

Type of Class

- ☐ Educable Mentally Retarded
- ☐ Trainable Mentally Retarded
- ☐ Slow Learner
- ☐ Learning Disability
- ☐ Physically Handicapped
- ☐ Emotionally Disturbed
- ☐ Other (Specify)

Name (List Alphabetically)	C.A.	I.Q.	Date Tested	Name of Test	Tested By	Recommended Placement

(REPRODUCED FROM STATE FORM)

Signed (Teacher)

Date

STATE OF LOUISIANA

DEPARTMENT OF EDUCATION

BATON ROUGE, LOUISIANA

REPORT OF SPEECH AND HEARING THERAPISTS

SUBMIT TO:
Director of
Special Education

School System

Fiscal Year 19 -19

Number of School in which Speech Therapy is Offered:

Speech Program

	NUMBER OF CASES IN GRADES			TOTAL
	1 to 6	7 to 9	10 to 12	
1. CASES SCREENED				
2. CASES ON WAITING LIST FOR CASE LOAD				
3. CASES CORRECTED OR DISMISSED BECAUSE MAXIMUM POSSIBLE IMPROVEMENT ATTAINED				
4. CLASSIFICATION OF PROBLEMS (Give Accumulative Totals for Year)				
a. Articulation				
b. Defects of Rhythm				
c. Cleft Palate				
d. Voice Defects				
e. Cerebral Palsy				
f. Hard of Hearing				
g. Aphasia				
h. Delayed Speech Development				

(REPRODUCED FROM STATE FORM)

Hearing Program

If hearing program is under the supervision of the State Department of Health, check here ☐. Do not include in the figures below those students tested by the State Department of Health.

	NUMBER OF CASES IN GRADES			TOTAL
	1 to 6	7 to 9	10 to 12	
5. AUDIOMETRIC SCREENING TEST				
6. INDIVIDUAL THRESHOLD TEST				
7. MEDICAL REFERRALS				
8. RECEIVED OTOLOGICAL EXAMINATION				

Signed: (Therapist)

Approved: (Superintendent or Supervisor)

Date

PARISH ________________ SCHOOL ________________ PRINCIPAL ________________ PRINC

GRADE	A	B—REGISTRATION									C—GAINS						
	Days Taught	E-1 ORIGINAL ENROLLMENT The first entry of a child in any school in Louisiana in the current session (Include any child entering from a school in a foreign country)			E-2 FROM OTHER STATES The first entry of a child transferring from a school in another state to a school in Louisiana in the current session			Total Registration E-1 + E-2			By promotion or change from other grades or classes in the same school.	By transfer from other schools (Public, Private or Parochial) in the parish	By transfer from other schools (Public, Private or Parochial) without the parish but in the State.	By re-entry of pupils who left or dropped out (see explanation)	Total Gains 1+2+3+4=5	By promotion or change to other grades or classes in the same school.	By transfer to other schools (Public, Private or Parochial)
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	1	2	3	4	5	1	2
Kindergarten																	
I.																	
II.																	
III.																	
IV.																	
V.																	
VI.																	
VII.																	
VIII.																	
Total Grades I. thru VIII.																	
IX.																	
X.																	
XI.																	
XII.																	
Total Grades IX. thru XII.																	
Total Grades I. thru XII.																	
Special Elementary																	
Special High School																	
Postgraduate																	
GRAND TOTAL																	

(REPRODUCED FROM STATE FORM)

IPAL'S **SESSION** REPORT

______ADDRESS_____________________________ PERIOD BEGINNING ______________ PERIOD ENDING ____________

D—LOSSES									E	F	G	H	I	J	K	L	M
			Drop Outs														
			Below 16 Yrs.		Over 16 Yrs.												
in the same parish.	By transfer to other schools (Public, Private or Parochial) without the parish but in the State.	By transfer to other schools (Public, Private or Parochial) in other states or foreign countries.	Legal or Authorized (see explanations)	Illegal or Unauthorized (see explanations)	(see explanations)	Deaths	Other Causes (see explanations)	Total Losses 1+2+3+4+5+6+7+8+9=10	Membership at Date of This Report B+C−D=E	Aggregate Days of Membership (This Column must equal Column G plus Column H)	Aggregate Days of Attendance	Aggregate Days of Absence	Average Daily Membership F÷A=I	Average Daily Attendance G÷A=J	Average Daily Absence H÷A=K	Percent of Attendance J÷I=L	Percent of Absence K÷I=M
	3	4	5	6	7	8	9	10									
			XXXXX	XXXXX	XXXXX												

(REPRODUCED FROM STATE FORM)

	SUMMER SESSION			MID-TERM			END OF SESSION			GRAND TOTAL		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
HIGH SCHOOL GRADUATES →												

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
LOUISIANA

DATA ELEMENTS			PUBLIC SCHOOLS			STATE SCHOOLS			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	**ENROLLED**	**AGE**	Data exists but not tallied	Modify Special Education Teacher-Class Report and automate processing	Local education agencies	Available	Request printout	Mental Retardation Division Computer Center	Not available
		HANDICAPPING CONDITION	Data exists but not tallied			Available			Not available
		EDUCATION PROGRAM	Not available			Available			Not available
	ON WAITING LIST	**AGE**	Not available	Develop new form	Local school superintendent	Available	Request printout	Mental Retardation Division Computer Center	Not available
		HANDICAPPING CONDITION	Not available			Available			Not available
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	**NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION**	**AGE**	Limited availability	Modify present reporting	Eleven special education diagnostic centers	Not applicable			Not applicable
		HANDICAPPING CONDITION	Limited availability			Not applicable			Not applicable
	INTRA-STATE TRANSFERS	**AGE**	Not available	Modify Principal's Session Report	Local school principal	Available	Request printout	Mental Retardation Division Computer Center	Not available
		HANDICAPPING CONDITION	Not available			Available			Not available
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	**AGE**	Not available	Modify Principal's Session Report	Local school principal		Request printout	Mental Retardation Division Computer Center	Not available
		HANDICAPPING CONDITION	Not available			Available			Not available
		REASON	Not available			Available			Not available
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Available		Tabulation and Analysis Section and LPI				
DATA USED TO SIMULATE SPECIAL EDUCATION	PROJECTED MIX OF EDUCATION PROGRAMS		Not available	Can be estimated	Special Education Staff				
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	**TARGET GROUP**	Available		Louisiana Act No. 487				
		EDUCATION PROGRAM	Not available	Planning	Special Education staff				
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Limited availability	Modify Special Education Teacher-Class Report	Local education agency				

MAINE STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

MAINE STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (RI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of this Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Maine, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

The Bureau of Guidance, Special, and Adult Education receives, on a routine basis, only enough information from the local districts to approve for the disbursal of funds. Very little statistical data is available concerning local handicapped child programs, population, and teaching staff.

The Bureau's Director, Mr. B. Trenholm, indicated a need for statistical data of the type required by the model. He felt the benefits gained from a report system would more than offset the additional reporting requirements generated by such a system.

Little use is made at the state level of automated data processing techniques for special education application. The state does have a computer system on which the model can be run. In addition, the Department of Education has a programming staff capable of implementing the model.

The application of a Manpower Requirements Projection Model cannot be accomplished until a special education reporting system is developed. It is estimated that it will take three years to develop the files required by the model.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The responsibility for the education of handicapped children in Maine is illustrated in the annotated informal organization chart shown in Figure 1. Only those organizations having educational or informational service functions for handicapped children have been included. It is not intended to include all of the many other functions which each agency performs.

The Department of Education, because it operates the public school system in Maine, is the primary education agency in the state. In this capacity it is responsible for the bulk of handicapped child education. It also directs and supervises the education in private schools where handicapped children are being educated at public expense.

The Bureau of Guidance, Special and Adult Education is the specific arm of the Department of Education whose function it is to oversee most of the state's special education programs. The Bureau is responsible for the education of all handicapped children, with the exception of blind and partially sighted, by approving the services provided to each child, aid to each district in setting up special education programs, and informally approving these

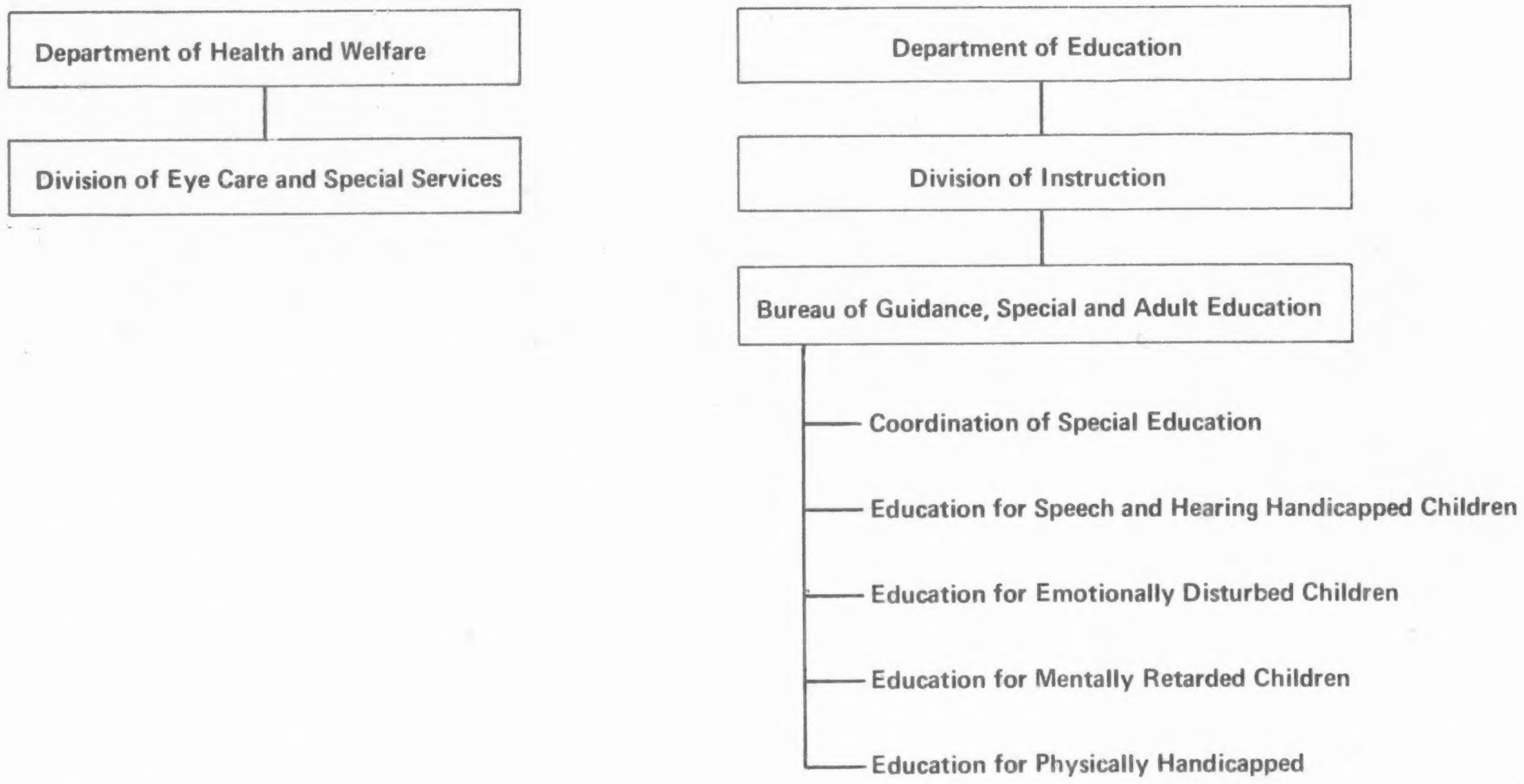
Department of Health and Welfare
Division of Eye Care and Special Services
Department of Education
Division of Instruction
Bureau of Guidance, Special and Adult Education
Coordination of Special Education
Education for Speech and Hearing Handicapped Children
Education for Emotionally Disturbed Children
Education for Mentally Retarded Children
Education for Physically Handicapped

FIGURE 1. MAINE ORGANIZATION CHART RELATING TO SPECIAL EDUCATION SERVICES

programs. The Bureau operates through a set of coordinators for each of the major handicapping conditions.

Aid for the blind and partially sighted rests with the Division of Eye Care and Special Services of the Department of Health and Welfare. Since Maine has no school for the blind, aid is given to the blind through three programs: resource rooms, materials in itinerate type programs, and the sending of children to the Perlkins School for the Blind in Boston.

IV. DATA ELEMENT EVALUATION

Some specific data elements are necessary to the use of the projection model. The information which these data elements provide may also be useful to the Bureau of Guidance, Special and Adult Education, and particularly to the coordinators within the Bureau for administrative and operational analyses. These data elements and their potential sources are discussed in the following paragraphs.

Number of Children Identified as Needing Special Education

There are two categories of information pertinent to the identified handicapped child population: those enrolled in special education programs, and those diagnosed as needing special education services and waiting to be enrolled.

Enrolled. The enrollment data elements required are enrollment by single year of age, handicapping condition and educational program (residential, full time special day class, part time special class and part time regular class, itinerant, etc.).

The required enrollment data for those children served by the Bureau of Guidance, Special and Adult Education are available on Department of Education forms similar in data element content to Form PH-1 (see Section X, page D19-16). These forms serve as applications for special education services. Each form identifies the child's name, age, handicapping condition, and other pertinent information. One of the forms is filled out and approved by the appropriate superintendent for each child requesting aid. The form is then sent from the superintendent to the Bureau. There is currently no established procedure for aggregating this data, except by manual effort as the specific need for information occurs. To accomplish collection of this data element, these forms must be summarized and the required aggregations developed.

Enrollment data concerning blind and partially sighted children is found on form SS-7 Rev. 769, Application for Aid to the Blind (see Section X, page D19-17). One of these forms is filled out for each child requesting special education services and sent to the Division of Eye Care and Special Services, Maine Department of Health and Welfare. The form contains the child's name, age, handicapping condition and other pertinent information.

Again the data is not currently aggregated, nor is the information sent to the Bureau of Guidance, Special and Adult Education.

Waiting List. The other facet of the identified handicapped child population, those that have been identified and are awaiting special education services, must be considered when planning for total services required.

Waiting lists of children diagnosed as requiring special education services, if they exist, are not forwarded to the Bureau of Guidance, Special and Adult Education. Private agencies and state institutions may have waiting lists, but their accuracy for model purposes may be suspect, because some of the children on those waiting lists may bery possibly be receiving some special education services within the local district, which would result in a duplication of count.

The amount of special education services required for the total Maine handicapped child population obviously cannot be determined by summing the enrollments and the current waiting lists data. In lieu of any better current guidelines, prevalence rates could be used to estimate potential total service requirements.

Using prevalence rates is, at best, an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data, such as surveys, and making successive approximations.

Number of Children Moving Into/Out of Identified Child Population

The movement of children within the handicapped child population needs to be traced to determine the effects of annual incidence, transfer and attrition on the service required.

Newly Diagnosed. The purpose of obtaining information pertaining to children newly diagnosed in a year is to develop some information on the annual incidence rates. Where diagnosis and identification are limited to capability to serve, a count of new enrollments in special education programs is the equivalent to a count of the newly diagnosed. However, this is a minimal condition and provision should be made for collecting newly diagnosed data pending the time when diagnosis is less restricted by service capability, funds, or availability of qualified personnel.

The local district is the focal point for the accumulation of data on handicapped children newly identified through public school screening/diagnostic procedures. Data is not necessarily available though on referrals originating from other screening activities such as parents, private physicians, clinics, etc. If all new diagnoses could be channeled into a central point, the local district for example, then duplications, could be eliminated and a reasonably accurate count of newly diagnosed could be recorded. At the present time this data is not available at the school level in Maine.

Intrastate Transfers. Tranfers within the state of children receiving special education services, while they do not change the state's total handicapped child population, should be accounted for separately. This will prevent a transfer from one district being counted as a new enrollee in another district, thus creating an error in annual incidence count. It will also prevent an intrastate transfer out of a district from being counted as an attrition from the state's total handicapped child population which would inflate the attrition figures. An analysis of transfers could also reveal the trend of movement according to the quality of special education services offered by various localities. The Bureau presently does not collect information of this type.

Data Used to Simulate Special Education Requirements

The Manpower Requirements Projection Model has the capability of simulating manpower requirements based upon selected variations of input data. Two such data elements are education program mix trends and personnel/pupil contact ratios. A simulated change in education program mix (for example, returning blind and deaf children to regular classes supplemented by resource-room work instead of special full-time classes) can be analyzed for its effect on manpower requirements. A proposed change in teaching technology that could affect the teacher/pupil contact ratio can be simulated to determine its effect on manpower requirements.

Education Program Mix Trends. At the present time the lack of detailed data from the local level deprives the Bureau of the information base from which to develop analysis of trends based upon program mix. Until such data is made available, the coordinators in the Bureau may be able to derive some model input data based upon experience.

Personnel/Pupil Contact Ratios. These ratios have been established for all special education programs for all handicapping conditions with the exception of the blind, partially sighted, deaf, and hard of hearing. The ratios are set by the Bureau director and his staff.

Number and Type of Special Educators Employed

The determination of special education manpower gap (the difference between projected requirements and present staff) requires an identification of the number of special education teachers, by type of condition and education level taught.

At the present time there is no central source for this data element. Though the Department of Education does certify special education teachers, this file is not updated as to who or where each teacher is currently working. An annual reporting system must be initiated to provide this data element.

V. PROCESSING POTENTIAL

Hardware

Maine owns an IBM 360/40 computer which is under the control of Accounts and Controls. The machine is available to all state departments on an as needed basis. There is a charge of eighty dollars per hour for use of the computer. To date the Bureau has done no data processing. However, some data processing has been done by the Department of Education and in addition the Department has its own keypunch services consisting of two keypunch machines and one verifier.

Personnel

The Department of Education has a small computer programming staff consisting of three full-time programmers and one part-time programmer. This group is responsive to the total needs of the Department of Education and to date have not worked for the Bureau of Guidance, Special and Adult Education. The Bureau can also call upon the programming capabilities of the central agency, Accounts and Controls, if the programming services within the Department of Education are not available.

VI. ADDITIONAL FACTORS

Special Education in Maine encounters many problems in its efforts to provide educational services to its handicapped child population. The wide dispersion of its sparse population over a large geographical area contributes to the difficulty of establishing concentrated special education programs. This, along with the state's remote location in relation to large population centers, adds to the difficulty of attracting qualified special education personnel to the state.

VII. RECOMMENDATIONS

Because the known manpower shortage so far exceeds any near future resolution, the application of the Manpower Requirements Projection Model to prepare a forecast of manpower requirements would probably not be of any analytical value at this time. This does not, however, preclude the need for additional information that would assist in the administration of Maine's special education programs. The procedures for providing this information, if developed now, would also provide the data elements necessary to the future application of the model.

The following recommendations would, upon implementation, provide for the information flow of data elements that would improve the quality and quantity of information available for special education program management and also provide the basic data necessary for the application of the Manpower Requirements Projection Model.

Since all applications must flow through and be approved by the various district superintendents, it is recommended that they serve as the focal point in the new special education reporting system. In addition, the Division of Eye Care and Special Services will also be requested to report annually to the Bureau. Whereas a system of this nature will increase the reporting requirements of the two groups, it is felt that the benefits realized from better program management will more than offset these additional reporting requirements.

The first input document to the system is the Special Education Enrollment Summary Report, shown in Figure 2. The form identifies the number of children in each handicapping condition by type of program. Intrastate transfers are those children who were enrolled in another special education program within the state of Maine last year and who for some reason have moved to their present school. This form will be completed at the local level at the beginning of each school year and sent to the district superintendent who will forward the data to the Bureau. The report will also have to be prepared by the Division of Eye Care and Special Services for the Blind and Partially Sighted and sent over to the Bureau.

In areas where special education services for identified handicapped children are not available within an annual cycle, viz, after each fall enrollment some children remain unserved, the waiting list becomes a factor in the determination of special education manpower requirements and should be reported.

The diagnosis of candidates for special education services should be encouraged even though the capability to serve may not presently exist. Knowing the service backlog is an important element of forward planning. The state should validate annual incidence rates through the accumulation of data on the newly diagnosed during the year.

The format for collecting data of this type is shown in Figure 3. This report will indicate the number of newly diagnosed and waiting lists for each handicapping condition. The report will be prepared in the fall at each school and sent along to the Bureau.

Attrition data, including intra-state transfers to another school must also be summarized and sent to the Bureau. Figure 4, Special Education Attrition Summary, illustrates a format for collecting this information by individual year of age and handicapping condition (the attrition categories are illustrative only). The report will be prepared by each local school at the end of each school year and sent to the Bureau.

The determination of the unserved child population is dependent upon the application of current prevalence rates. Although the use of unvalidated prevalence rates (especially those of national or obsolete origin) is a convenient means of "guesstimating" the theoretical service requirements, even the "ball park" accuracy is questionable. The prevalence rates currently used in Maine should be reviewed in the light of current knowledge; and procedures should be initiated for validating prevalence rates.

Date	Local Education Agency
Handicap Condition	Location

Special Education Program Type Code ______

Enrollment Category	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Continue in Program From Last Year																	
New Enrollee or Interstate Transfer																	
Intrastate Transfer From Another LEA																	
Total																	

Special Education Program Type Code ______

Enrollment Category	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Continue in Program From Last Year																	
New Enrollee or Interstate Transfer																	
Intrastate Transfer From Another LEA																	
Total																	

Special Education Program Type Code ______

Enrollment Category	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Continue in Program From Last Year																	
New Enrollee or Interstate Transfer																	
Intrastate Transfer From Another LEA																	
Total																	

FIGURE 2. SPECIAL EDUCATION ENROLLMENT SUMMARY REPORT

Report Date (fall of each year) LEA ____________

Handicap Condition	N.D. = newly diagnosed W.L.T. = waiting list total	Age					
		4	5	6	7	8	. . . Etc.
Emotionally Disturbed	N.D.						
	W.L.T.						
Educable Mentally Retarded	N.D.						
	W.L.T.						
Trainable Mentally Retarded	N.D.						
	W.L.T.						
Etc.							

FIGURE 3. NEWLY DIAGNOSED AND WAITING LIST REPORTING FORMAT

Date	Local Education Agency	Location

Handicap Condition ____________________

Attrition Categories	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Returned to Regular Education Procedure																	
Intrastate Transfer to Another LEA																	
Mortality																	
Moved out of State																	
Other (Dropout, Graduation, etc.)																	
Total																	

Handicap Condition ____________________

Attrition Categories	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Returned to Regular Education Procedure																	
Intrastate Transfer to Another LEA																	
Mortality																	
Moved out of State																	
Other (Dropout, Graduation, etc.)																	
Total																	

FIGURE 4. SPECIAL EDUCATION ATTRITION SUMMARY REPORT

The Bureau of Guidance, Special and Adult Education should request that the state agency responsible for population statistics prepare a 10-year annual projection of the general child population by individual year of age. This projection should be updated annually.

The number of special education personnel employed, by type, can be obtained from a report such as Figure 5, Annual Special Education Manpower Report. This report is of two parts. The first deals with teacher utilization - identifiying each teacher's name, special education certification, and the number of children with which they work. The second part of the form will identify additional manpower needs including types of positions and the number required. While this data is not directly required by the model, it will help the Bureau to assess the immediate additional manpower needs.

It should be noted that the forms shown in this section are examples only. They reflect the type of data which should be collected. The actual forms should be designed by the Bureau Director and the local superintendent with data processing personnel in order to reflect local reporting requirements and techniques.

Once the forms have been designed it is recommended that the Director contact the programming staff to develop the required program to reduce and sort the data. The information system described in the preceeding paragraphs is a first step in the development of a special education reporting system. It is not envisioned as answering the total special education information needs. However, it will serve as a starting point in achieving these reporting goals.

VIII. RESOURCE REQUIREMENTS—MANPOWER

It is estimated that one man a month will be required to finalize forms design. This should be done with the assistance of the Bureau Director and the various district superintendents to assure compatibility with local needs and possible state requirements. An additional two man - months will be required for a systems analyst/programmer to accomplish the required systems design, coordination and computer programming/debugging to create the necessary files.

Maintenance of the system should require less than one man-month of cumulative effort per year.

STATE OF MAINE
DEPARTMENT OF EDUCATION
ANNUAL SPECIAL EDUCATION MANPOWER REPORT

School______________________________

School Union No.____________________

or

Administrative District No._______

A. TEACHER UTILIZATION

Teacher Name	Special Education Certification	No. Children Work With
Mrs. Smith	Speech Correctionist	10
Mrs. Jones	Physical Handicapped	12
Etc.	Etc.	Etc.

B. TEACHER REQUIREMENTS—ADDITIONAL

Special Education Certification	Number Required
Speech Correctionist	2
Etc.	Etc.

FIGURE 5. MANPOWER SUPPLY

IX. PERSONS INTERVIEWED

Mr. B. Trenholm	Director, Bureau of Guidance, Special and Adult Education.
Mr. R. Duncan	Education for Speech and Hearing Handicapped Children.
Mr. R. Hight	Education for Emotionally Disturbed Children.
Mrs. E. MacDonald	Education for Mentally Retarded Children.
Mr. E. Darby	Education for Physically Handicapped.

X. CURRENT REPORT FORMATS

Typical forms used in Maine to report and collect special education information.

Form Ph-1	Application Form, Education for Physically Handicapped Children
Form SS-7 Rev. 769	Application for Aid to the Blind

Ph-1

State of Maine
DEPARTMENT OF EDUCATION
Augusta

Case No.____________

(Approved for:)
( )
( )
( )
(____________)

(Union)
( )
(S.A.D.)
( )
(Supt.)

EDUCATION FOR PHYSICALLY HANDICAPPED CHILDREN

☐ New APPLICATION FORM ☐ Renewal

Name____________ M ☐ F ☐ Birth Date____________
Last First Middle mo. da. yr.

P.O. Address____________ School Residence____________
No. Street City or Town City or Town

Name of Parent or Guardian____________ Occupation____________
Last First

Name of Mother____________ Occupation____________
Last First

Child's Major Physical Disability____________

Any Additional Defects____________

Last Medical Examination for Major Physical Disability____________
Month Year

By Whom____________
Name of Doctor or Clinic Address No. Street City

Does Child's Mentality Appear to be____________
Average Below Average Above Average

Results of Mental Test, if any____________
Name of Test Score

Last School Attended____________ Town____________

Last Grade Completed____________ Present Grade Pl[illegible]nt____________

Never Attended School____________ ____________

TYPE OF SERVICE REQUESTED: (check)

☐ Home Instruction ☐ Hearir[illegible] ☐ Sight Conservation

☐ Transportation ☐ Other (describe)

(REPRODUCED FROM STATE FORM)

Remarks:

Reported by____________ Date____________
Doctor, Nurse, Teacher, Parents, Other

Address____________

****

Approved by____________ Date____________
Superintendent of Schools

+++

RETURN TO: Director, Education for Physically Handicapped Children
Department of Education
Augusta, Maine

D19-15

RETURN TO:

MAINE DEPARTMENT OF HEALTH AND WELFARE
DIVISION OF EYE CARE AND SPECIAL SERVICES
AUGUSTA, MAINE 04330

APPLICATION

Name of Applicant ____________________ Tel. No. __________

Mailing Address ____________________ Residence __________

Directions for reaching applicant's home ____________________

Applicant's Birthdate ____________________ (Month Day Year) Sex: ☐ Male ☐ Female

Marital Status: ☐ Single ☐ Married ☐ Divorced ☐ Widowed ☐ Separated

---

APPLICANT'S LIVING ARRANGEMENTS -- Check one below:

☐ alone in own home ☐ boarding home ☐ hotel or rooming house ☐ nursing home

☐ with family or friends in household. If living with family or friends, fill in names of all members of household below. Use back of form if more space needed.

Name of Member	Birthdate	Relationship to Applicant

(REPRODUCED FROM STATE FORM)

Does Applican [illegible] any type of public assistance? ☐ Yes ☐ No

If "YES", specify type ____________________ Applicant's case number __________

Does Applicant have: ☐ Blue Shield ☐ Blue Cross

☐ Other Medical Insurance (specify) ____________________

☐ Medicare (copy complete claim number) ____________________

Applicant's Social Security Number is ____________________

APPLICANT'S EYE PROBLEMS AND OTHER HEALTH AND MEDICAL PROBLEMS

Has Applicant ever been under care of eye doctor or eye clinic? ☐ Yes ☐ No

If "YES", name of eye doctor or clinic ____________________

Address ____________________

Date last seen by this eye doctor or clinic was ____________________

SS-7 Rev. 769

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
MAINE

DATA ELEMENTS			ALL SCHOOLS		
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Available	Needs aggregation at each institution	Individual institution
		HANDICAPPING CONDITION			
		EDUCATION PROGRAM			
	ON WAITING LIST	AGE	Not available	Provide additional form	Local schools
		HANDICAPPING CONDITION			
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE			
		HANDICAPPING CONDITION			
	INTRA-STATE TRANSFERS	AGE			
		HANDICAPPING CONDITION			
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE			
		HANDICAPPING CONDITION			
		REASON			
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Not available	Refine existing projections	Department of Education
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Basic data availability	Analysis of data	Special Education Consultants
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Available		Bureau of Guidance, Special and Adult Education
		EDUCATION PROGRAM			
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Not available	Provide additional form	Local schools

MARYLAND STATE ANALYSIS REPORT

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IV. DATA ELEMENT EVALUATION D20-4
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VI. ADDITIONAL FACTORS D20-10
VII. RECOMMENDATIONS D20-11
VIII. RESOURCE REQUIREMENTS—MANPOWER D20-19
IX. PERSONS INTERVIEWED D20-20

The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

MARYLAND STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Maryland, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 3 at the end of this report.

II. SUMMARY

The Special Education Section receives, on a routine basis, only enough information from the local education agencies to approve the disbursal of funds. It feels that it has very little leverage for going to the LEA for additional information, although the staff members interviewed indicated a pressing need for more information about the state's handicapped child programs, population, and teaching staff.

The data required by the Manpower Requirements Projection Model is usually already available at the local level, as indicated by visits to three county special education agencies.

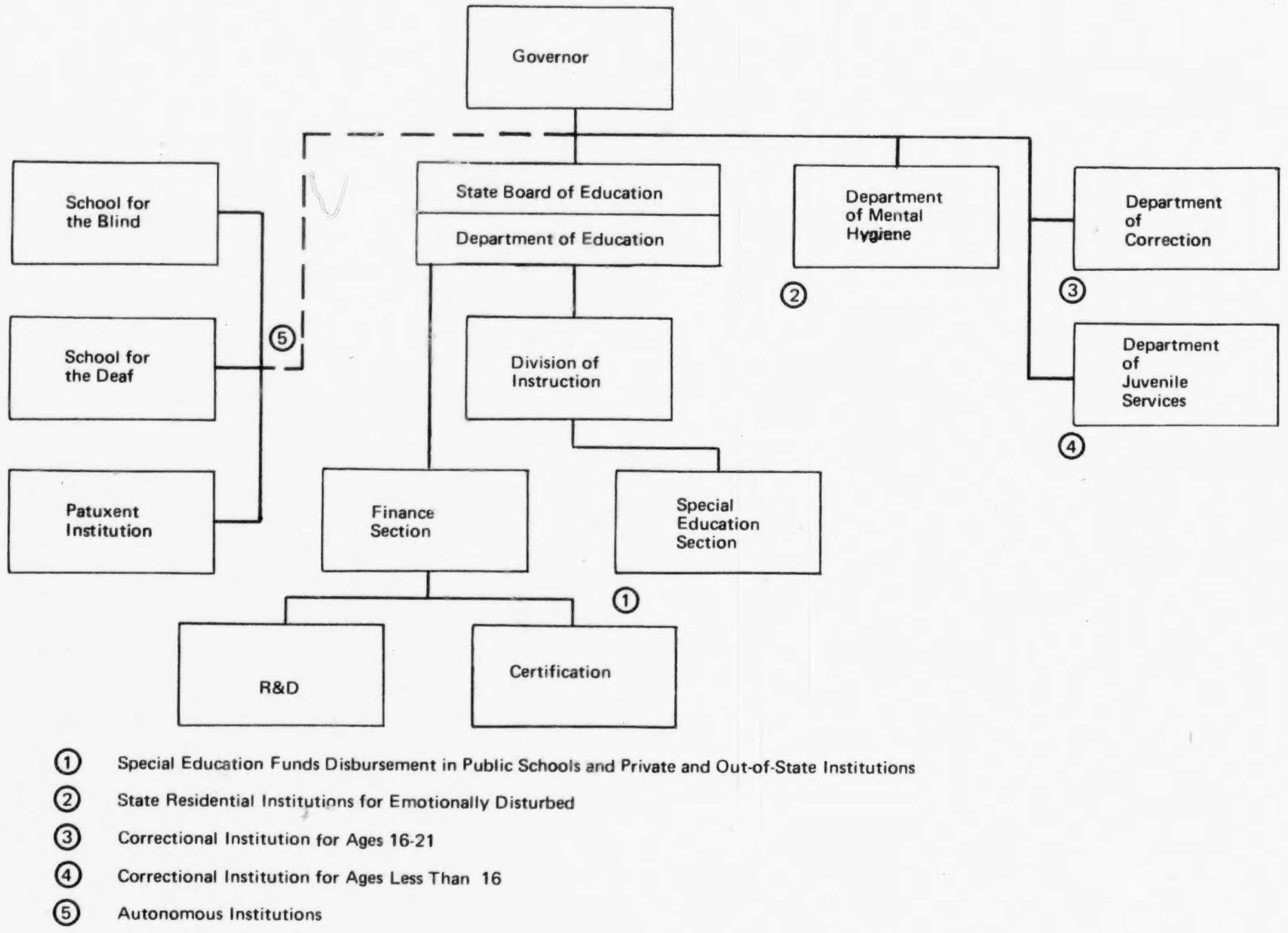
Little use is made at the state level of automated data processing techniques for special education application. This is due to several causes including lack of data to process, unawareness within the section of data processing potential, and inaccessability of electronic data processing support. There were indications, however, that data processing support could be obtained providing a request was prepared and the work allocation approved.

Initiation of a Special Education information flow and the application of the Manpower Requirements Projection Model can be accomplished, but it will require aggressive action on the part of the Special Education staff and the cooperation of other state agencies and the LEAs. Even so, it is estimated that it will take three years to realize successful implementation and reliable data.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The responsibility for the education of handicapped children in Maryland is illustrated in the annotated informal organization chart shown in Figure 1. Only those organizations having educational or informational service functions for handicapped children have been shown. It is not intended to include all of the many other functions which each agency performs.

The Department of Education, through the Division of Instruction, is the principal special education agency because the public school system falls within its jurisdiction. Specifically, the Special Education Section, within the Division of Instruction, has the responsibility for providing leadership and


Governor
State Board of Education
Department of Education
Department of Mental Hygiene
Department of Correction
Department of Juvenile Services
School for the Blind
School for the Deaf
Patuxent Institution
Division of Instruction
Finance Section
Special Education Section
R&D
Certification
①
②
③
④
⑤

① Special Education Funds Disbursement in Public Schools and Private and Out-of-State Institutions
② State Residential Institutions for Emotionally Disturbed
③ Correctional Institution for Ages 16-21
④ Correctional Institution for Ages Less Than 16
⑤ Autonomous Institutions

FIGURE 1. ORGANIZATIONAL RESPONSIBILITIES FOR HANDICAPPED CHILD EDUCATION IN MARYLAND

guidance, as well as overseeing the fund disbursement, to the public school special education programs. In addition, it is responsible for approval of funds for private and out-of-state institutions.

Other state agencies which have or may have special education responsibilities are the Department of Mental Hygiene (state resident institution for emotionally disturbed people), the Department of Correction (correctional institution for ages 16-21), and the Department of Juvenile Services (for children under 16). There are also several state-operated autonomous institutions including the School for the Blind, the School for the Deaf, and the Pautuxent Institution.

Ancillary functions that provide a service to the Special Education Section are the Research and Development (R&D) Branch and the Certification Branch. The R&D Branch is the potential source of electronic data processing support if capacity were available. The Certification Branch certifies to the training and experience of special education teachers.

IV. DATA ELEMENT EVALUATION

Certain specific data elements are necessary to the use of the Manpower Requirements Projection Model. The information which these data elements provide may also be very useful to the Division of Instruction, and particularly, to the Special Education Section, for other administrative and operational analyses. In the following paragraphs the data elements needed by the model and by the state for planning purposes are discussed in terms of their availability and development potential. Since the state personnel interviewed did not consider it necessary to maintain data by child name at the state level, the development of each data element should fit into the framework of a data summary type of information system, e.g., data reported in totals by age and handicapping condition, rather than a modified pupil accounting system.

The present data flow from the local education agencies (LEA), which in Maryland is by county (23) and the City of Baltimore, consists of information submitted annually on the Request For Approval Of Special Classes For Handicapped Children (Preschool and School Age) in Public Schools. An identical form, except for color and a minor change in title (Nonpublic in lieu of Public), is used to report private school information. For convenience, these two forms will hereinafter be referred to together, as "Form A". No special education information is presently transmitted from the other state agencies or institutions to the Special Education Section.

The information presented on Form A is summary in nature, intended primarily for use in approving the distribution of funds, and lacks details essential to model usage requirements. Section VII, RECOMMENDATIONS, contains suggestions on how an information flow may be developed that will provide those data elements not currently available at state level.

Number of Children Identified As Needing Special Education

The identification of the child population requiring special education services is necessary for the determination of actual special education manpower requirements. This population is divided into two categories — those enrolled and presently receiving services, and those waiting to receive services.

Enrolled. The present Form A format reports individual class total enrollment by handicap types only. The model contains the capability to consider the effect on manpower requirements of variations in personnel/pupil contact ratios based upon the type of educational program. Although a variety of types of programs (residential special class, full-time special education day class, part-time special education and part-time regular education class, resource room, etc.) are available in Maryland, enrollment data by education program are not available under current collection procedures. To accomplish collection of this data element, the local districts would have to receive education program definitions and then report the classes accordingly. In addition to the summarization by handicapping condition and type of program, the enrollment by single year of age needs to be summarized and reported.

Waiting List. The other facet of the identified child population, those who have been identified and are awaiting special education services, must be considered when planning for the total services required.

At the present time no waiting list information is forwarded by the LEA to the Special Education Section. The extent to which waiting lists are maintained is dependent upon the local diagnostic policy and the availability of services to those identified as handicapped. If the time period for waiting for special education services is relatively short, that is, if there is no carry over of waiting list names from one school year cycle to another, the reporting of waiting list data is not essential, because there is no appreciable backlog to be considered for planning purposes. However, if a continuous backlog does exist, which may be the case for some LEAs or some state and private institutions, then waiting list information is important to future planning, and should be reported to state level for incorporation in projection model data.

Unidentified Handicapped Population

Enrollments and waiting list totals provide data on the identified handicapped child population. When planning for future manpower, facilities or services requirements for the unidentified handicapped child population must also be considered. If the state had a complete and systematic diagnostic referral system wherein every child was screened and the potentially handicapped were referred and diagnosed, the total handicapped child population would be identified. However, in the absence of such a program, a usual procedure for estimating the unidentified and unserved handicapped population is to apply prevalence rates to the general child population projections and subtract the identified population.

Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

Number of Children Moving Into/Out Of Identified Handicapped Child Population

The movement of children within the handicapped child population needs to be traced to determine the effects of annual incidence, transfer, and attrition, on the service required.

The purpose of obtaining data pertaining to the newly diagnosed in a year is to develop information on the annual incidence rates. In Maryland, the identification of handicapped children is the responsibility of the LEA. Regardless of the source of referral or the diagnostic steps involved, the final identification is reported to the LEA for assignment of the child to a special education program. The data on newly diagnosed, by age and handicapping condition, should therefore be readily available at the LEA.

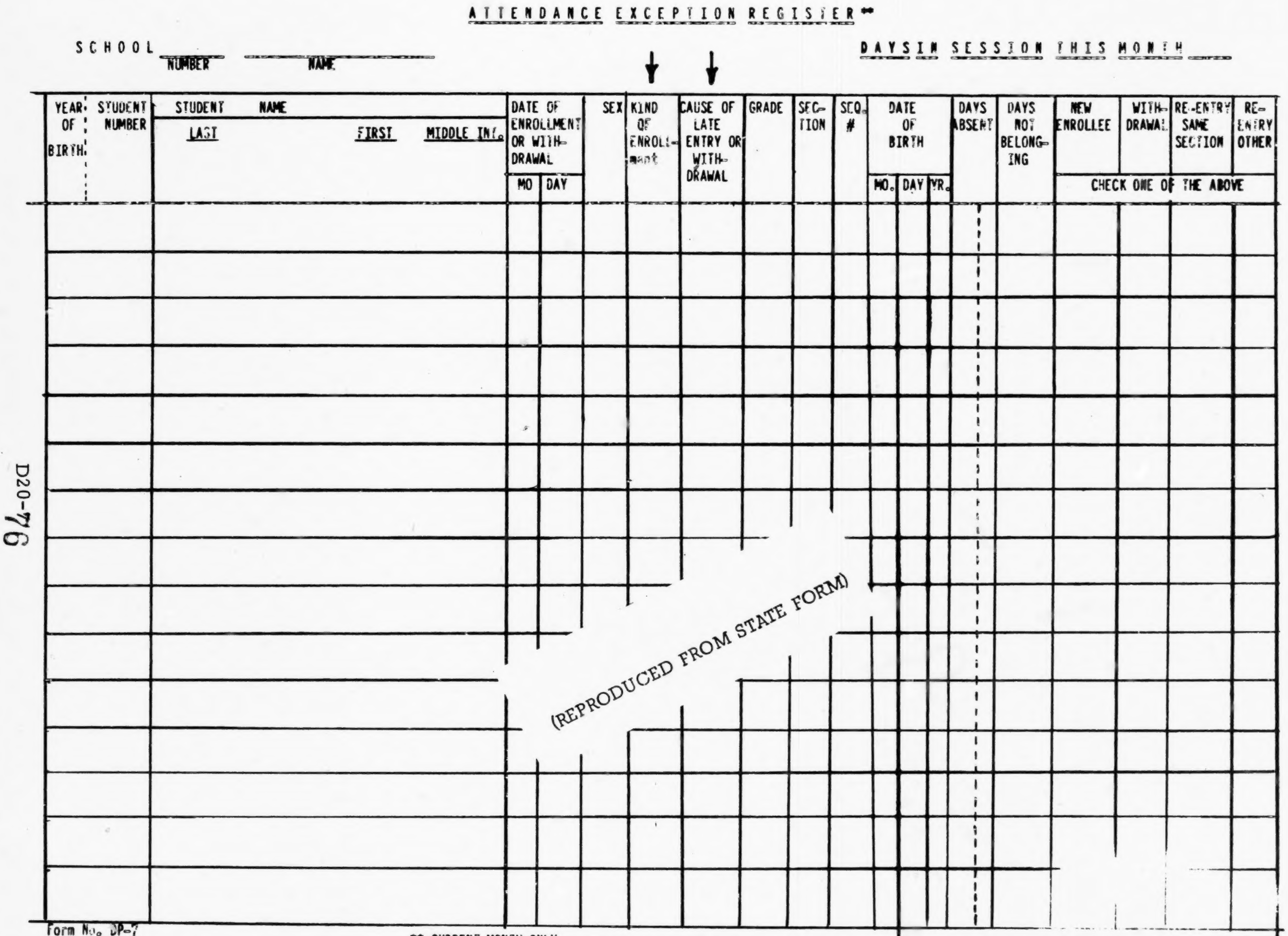
Transfers within the state of children receiving special education services, while they do not change the state's total handicapped child population, should be accounted for separately. This will prevent a transfer from one LEA being counted as a new enrollee in another LEA, thus creating an error in annual incidence count. An analysis of transfers could also reveal the trend of movement according to the quality of special education services offered by various localities.

Attritions and intra-state transfers out of an LEA constitute the deductions from the handicapped child population of an LEA.

Although at present no transfer and attrition information is reported to the Special Education Section at the state level, it is information which is available at the local levels. The procedures and forms for collecting this data vary from LEA to LEA; however, there is a coding scheme in general use among the local agencies which provides for the level of identification required by the model. One of these forms in use in Frederick County is illustrated in Figure 2, Attendance Exception Register, Form DP-7, and the coding scheme is shown in Table 1, Enrollment, Transfer, and Attrition Codes. The only information which is not available from this format is the identification of the child's handicapping condition and a minor modification could accomplish this.

General Child Population Projections

The projections of general child populations for a number of years forward by individual year and by single year of age is a model data element requirement. These are the values to which validated incidence rates will be applied



ATTENDANCE EXCEPTION REGISTER**

SCHOOL ______ ______ DAYS IN SESSION THIS MONTH ____
NUMBER NAME

YEAR OF BIRTH	STUDENT NUMBER	STUDENT NAME LAST	FIRST	MIDDLE INI.	DATE OF ENROLLMENT OR WITHDRAWAL		SEX	KIND OF ENROLLMENT	CAUSE OF LATE ENTRY OR WITHDRAWAL	GRADE	SECTION	SEQ. #	DATE OF BIRTH			DAYS ABSENT	DAYS NOT BELONGING	NEW ENROLLEE	WITHDRAWAL	RE-ENTRY SAME SECTION	RE-ENTRY OTHER
					MO	DAY							MO.	DAY	YR.			CHECK ONE OF THE ABOVE			

(REPRODUCED FROM STATE FORM)

Form No. DP-7
1967 - REV.

** CURRENT MONTH ONLY

FIGURE 2. ATTENDANCE EXCEPTION REGISTER, FORM DP-7

TABLE 1

ENROLLMENT TRANSFER AND ATTRITION CODES

Kind of Enrollment

0 - First Regular
1 - Transfer from school within this county
2 - Transfer from private or parochial school within this county
3 - Transfer from Maryland public school outside this county
4 - Transfer from Maryland private or parochial school outside of this county
5 - Transfer from public school in another state
6 - Transfer from private or parochial school in another state
7 - Transfer from school outside of U.S.
8 - Transfer from another room
9 - Re-entered after withdrawal

Cause of Late Entrance

E01 - Return from armed forces
E02 - Broken family
E03 - Recently moved here and not previously enrolled in any school
E04 - Transfer from another school
E05 - Under 16, employed illegally
E06 - Over 16, employed
E07 - Illness or quarantine before entering first time
E08 - Negligence or indifference of family or child
E09 - Parents fear of contagion or infection during epidemics

Cause of Withdrawal

W01 - Transferred to public school within county
W02 - Transferred to private school within county
W03 - Transferred to school outside of county, changed residence
W04 - Transferred to school outside of county, without changing residence
W05 - Special Case
W06 - Enlisted or drafted
W07 - Committed to institution
W08 - 16 years or older
W09 - Mental incapacity
W10 - Physical incapacity
W11 - Economic reasons
W12 - Marriage
W13 - Death
W14 - Under 16, suspended permanently
W15 - Transfer within school

(REPRODUCED FROM STATE FORM)

in the forward projections of the handicapped child population. The availability of such projections was not known to the Special Education staff and could not be traced during the interview period.

Data Used To Simulate Special Education Requirements

The Manpower Requirements Projection Model has the capability of simulating manpower requirements based upon selected variations of input data. Two such data elements are education program mix trends and personnel/pupil contact ratios. A simulated change in the education program mix (for example, returning blind and deaf children to regular classes supplemented by resource room work instead of special classes) can be analyzed for its effect on manpower requirements. A proposed change in teaching technology that could affect the teacher/pupil contact ratio can be simulated to determine its effect on manpower requirements.

At the present time the lack of detailed data from the local level deprives the Special Education Section of the informational base from which to develop an analysis of trends. Such information would be particularly useful in Maryland in the forthcoming years because of the efforts to introduce a new continuum of special education services.

Personnel/Pupil Contact Ratios

The personnel/pupil contact ratios are prescribed in detail in the "Standards, Rules, and Regulations Governing the Provision of Special Programs For Handicapped Children ...." These ratios are defined by type of handicap, educational level, and type of program in all handicap areas where such definition is deemed to be practical. This data element is applicable as is to the Manpower Requirements Projection Model needs.

Number and Type of Special Educators Employed

The Maryland State Department of Education issues certificates of certification marked "Special Education Teacher" with no indication of area of expertise. Although the LEA employs personnel by special education specialty (Teacher of Visually Handicapped, Special Class Teacher-Auditory Handicaps, etc.), a breakdown of the active teaching staff by area of specialization is not currently available to the Special Education Section.

V. PROCESSING POTENTIAL

The data processing support for the Department of Education is the responsibility of the Research and Development Branch's Data Processing Center. Currently, this center provides no services to the Special Education Section. No services had been previously requested, and at the time of the survey visit, no new requests for services were being processed. This situation is expected to change however, when the conversion to the Towson facility is completed.

The availability of the services of this center will then be contingent upon a priority evaluation of new requests.

Hardware

The computer equipment available at the Data Processing Center in Towson, Maryland includes a Honeywell 1200 with 165K byte storage capacity, a FORTRAN compiler, and ancillary equipment providing sorter, printer, and keypunching capability. This hardware is adequate for processing the model and the brief time needed for running the model data should be no constraint upon its application. However, the hardware needs for the data bank required to support model requirements must be evaluated at the time of system design.

Personnel

The staff of the Data Processing Center has the technical capability to support a special education information flow system and to utilize the model program. In discussion with Mr. Bassford, Coordinator, Data Processing Systems Analyst, it was indicated that the Center's support functions included guidance in forms design, data input preparation, output format preparation and systems design.

The staff of the Special Education Section is capable of formulating the input premises necessary for utilizing the model's simulative capabilities and also for analyzing and applying the results.

Attitude

It was very obvious to the Special Education Section staff that the information routinely available to them was inadequate to perform their legislated responsibilities. They spend a considerable amount of administrative and clerical effort manually assembling data for special reports. In this environment, the automated availability of data is a most attractive objective. A concept, such as the Manpower Requirements Projection Model, that would facilitate data availability and provide the Section with improved administrative tools is viewed very favorably. There is a serious reservation concerning the feasibility of obtaining more detailed data from the local levels and also about the probability of obtaining Data Processing Center support.

VI. ADDITIONAL FACTORS

As already indicated, there is little routine information transmitted from the local levels to the state level that is not associated with the financial reimbursement of special education programs. When additional information is required, special one-time requests are initiated and the locals are asked to respond either by telephone or in writing. The Special Education Section feels that it has bery little leverage with many of the locals when requesting information beyond the minimum required.

The Special Education Section has not endeavored to utilize automated data processing techniques because of the apparent inaccessability of Data Processing Center services. A special study of state computer facilities, reorganizations, and movement of operations to different geographical locations has effectively limited any support to only the existing applications. However, relief from this constraint is anticipated early in 1970.

VII. RECOMMENDATIONS

As previously stated in this report, very little of the data required for use of the Manpower Requirements Projection Model is now available at the State Special Education Section level. Therefore, any recommendations which are made must also include the development of the overall flow of special education information.

The development of an information flow pertaining to the handicapped child population in Maryland involves more than the determination of data element sources and the prescription of a flow path. The concept of a centralized data base, in which data would be provided in a compatible format so that it can be accumulated and processed for output in a format convenient to the user, must first be accepted by those who would benefit most by its availability. Those beneficiaries would be the supervisors and specialists in various state agencies, and perhaps the legislature, who would be able to obtain consolidated and coordinated data pertaining to either specific or summarized handicap education areas.

The Maryland agencies serving the handicapped child population have a current need for coordinated special education information. In the future, as the number of children served increases and the services available to them are expanded, the requirement will become even more essential to the efficient administration of the state's handicapped child education programs.

The development of a unified information flow that will encompass the total handicapped children services sphere will be a complex effort. A concentration on purpose and objective, and the complete and unrestricted cooperation of both intra-agency and inter-agency personnel involved will be required. It will need time, testing, and modification before it will be a fully responsive system. The need for information is critical. This is a prime reason for initiating the development of information reporting procedures as soon as possible.

The involvement of different state agencies in providing special education services, adds to the complexity of creating a unified information flow. For this reason it is recommended that the development of a special education flow system be accomplished in two phases.

The first phase is concerned with the Special Education Section itself. A procedure should be developed within the agency that would provide for the consolidation of all information into one data bank. Individual specialists could then extract that information which is pertinent to their operations, and in addition, the Section could extract aggregated information which it requires to plan and administer the overall operation. The second phase involves the incorporation of handicapped child information from other state agencies into one basic data bank.

Some of the steps critical to the implementation of the first phase are included in the following recommendations.

a. The Special Education Section has requested little or no service in the past from the Data Processing Center, and the Data Processing Center has recently processed few requests for new work. Both of these circumstances must be changed if the Section is to develop the informational flow necessary to the total performance of its function. The Data Processing Center has indicated that they will shortly be undertaking new work assignments but that requests for such work must be evaluated and approved before the work can begin.

   The Special Education Section does not currently have the skills within its present staff to do the necessary systems analysis, design coordination, and forms design. This capability must be provided to the Section, either through addition to the staff, through support from another agency, or from consultant sources. Electronic data processing (EDP) is advisable for efficient utilization of the data. Information existing on the original individually prepared input sheets is difficult to sort, rearrange, extract and analyze.

   The first move, then, must be made by the Special Education Section through the preparation and submission of a request to the Data Processing Center to provide assistance in analysis, design, programming and implementation of a Special Education Information System. This system should provide the Section with all the data needed for the efficient operation and administration of its functions and should also provide the data necessary for the projection model.

Computer programs should be designed that will record this data on magnetic tape and permit its extraction on computer produced reports. The Section staff would be expected to specify the output requirements for the printout, but systems design and programming capability should be provided by the computer support agency (possibly the Data Processing Center). The net effect on program supervisors and specialists will be that less time will be spent on the clerical effort of accumulating data and more time will be available for the professional aspects of their job.

b. In the initial phase of establishing an information flow and applying automated data processing techniques, the efforts should probably be confined to those handicapped child educational areas for which the Special Education Section has responsibility. This is so the data collection instruments and procedures, and input preparation and output formats, can be tested and proved before expanding to include other handicapped child educational areas, such as nonpublic schools and other state agencies. However, the cooperation and participation of these areas should be encouraged so that the input data to the Manpower Requirements Projection Model, and the results, will be representative of the state's total manpower requirement.

c. Much of the data required for model input is already available at the local levels. This information should be reported to the Special Education Section in a systematic manner. Some sample formats for the collection of summarized data are illustrated in Figures 3, 4, and 5.

   Figure 3, Special Education Enrollment Summary Report, shows a suggested format for collecting enrollment data by handicapping condition and special education program type. This form would be completed by the local education agency (county, state institution or private school). A separate sheet(s) would be used for each handicapping condition. For statewide

Date	Local Education Agency
Handicap Condition	Location

Special Education Program Type Code ____________

Enrollment Category	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Continue in Program From Last Year																	
New Enrollee or Interstate Transfer																	
Intrastate Transfer From Another LEA																	
Total																	

Special Education Program Type Code ____________

Enrollment Category	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Continue in Program From Last Year																	
New Enrollee or Interstate Transfer																	
Intrastate Transfer From Another LEA																	
Total																	

Special Education Program Type Code ____________

Enrollment Category	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Continue in Program From Last Year																	
New Enrollee or Interstate Transfer																	
Intrastate Transfer From Another LEA																	
Total																	

FIGURE 3. SPECIAL EDUCATION ENROLLMENT SUMMARY REPORT

consistency, it is suggested that codes similar to those in Table 2 be used to identify the program types. This form would be submitted annually, shortly after fall enrollments have stabilized.

TABLE 2

SPECIAL EDUCATION PROGRAM TYPE CODES

Special Education Program Type	SCHOOL TYPE		
	Public	Nonpublic	State Inst.
Students in residence	P-1	N-1	S-1
Day school, all classes special education	P-2	N-2	S-2
Special education classes in regular school	P-3	-	-
Resource room class	P-4	N-4	S-4
Itinerant	P-5	-	S-5
Other (explain)	P-6	N-6	S-6

d. In areas where special education services for identified handicapped children are not available within an annual cycle, viz, after each fall enrollment some children remain unserved, the waiting list becomes a factor in the determination of special education manpower requirements and should be reported.

The diagnosis of candidates for special education services should be encouraged even though the capability to serve may not presently exist. Knowing the service backlog is an important element of forward planning. The state should validate annual incidence rates through the accumulation of data on the newly diagnosed during the year. Since these diagnostic records are assembled at the LEA it should not be too difficult to obtain summarized data from this source. The format shown in Figure 4, Newly Diagnosed and Waiting List Reporting Format, illustrates a possible configuration for this purpose.

e. Attrition data, including intra-state transfers to another LEA, can also be summarized at the local level and transmitted to the state level. Figure 5, Special Education Attrition Summary Report, illustrates a format for collecting this information by individual year of age and handicapping condition (the attrition categories are illustrative only). This report can also be submitted in the fall, but will contain the data accumulated in the previous reporting cycle.

f. The determination of the unserved child population is dependent upon the application of current prevalence rates. Although the use of unvalidated prevalence rates (especially those of national or obsolete origin) is a convenient means of "guesstimating" the theoretical service requirements, even the "ball park" accuracy is questionable. The prevalence rates currently used in Maryland should be reviewed in the light of current knowledge; and procedures should be initiated for validating prevalence rates.

g. The Special Education Division should request that the state agency responsible for population statistics prepare a 10-year annual projection of the general child population by individual year of age. This projection should be updated annually.

h. The number of special education personnel employed, by type, can be obtained from the "Form A" which is presently submitted to the Special Education Section by the LEA. This information can probably be manually summarized and totaled without much difficulty.

Report Date (fall of each year) LEA ____________

Handicap Condition	N.D. = newly diagnosed W.L.T. = waiting list total	Age					
		4	5	6	7	8	. . . Etc.
Emotionally Disturbed	N.D.						
	W.L.T.						
Educable Mentally Retarded	N.D.						
	W.L.T.						
Trainable Mentally Retarded	N.D.						
	W.L.T.						
Etc.							

FIGURE 4. NEWLY DIAGNOSED AND WAITING LIST REPORTING FORMAT

Date	Local Education Agency	Location

Handicap Condition ____________________

Attrition Categories	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Returned to Regular Education Procedure																	
Intrastate Transfer to Another LEA																	
Mortality																	
Moved out of State																	
Other (Dropout, Graduation, etc.)																	
Total																	

Handicap Condition ____________________

Attrition Categories	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Returned to Regular Education Procedure																	
Intrastate Transfer to Another LEA																	
Mortality																	
Moved out of State																	
Other (Dropout, Graduation, etc.)																	
Total																	

FIGURE 5. SPECIAL EDUCATION ATTRITION SUMMARY REPORT

The second phase in the implementation of a total information reporting system involves coordination with, and the cooperation of, other state agencies involved in the education of handicapped children. It would probably be advisable to have the reporting system functioning within the Special Education Section before enlisting the participation of other agencies. However, consideration of their potential data requirements when designing the reporting formats and the data bank record could facilitate their entry into the system when the appropriate time comes.

The object of other agencies' participation in the reporting system is to make available data that will represent the entire handicapped child educational area in the state. This will make manpower projections more representative of the state's total requirements, and because of the availability of consolidated data, will be useful to both the legislature and agency administrators in planning the overall direction of state's effort. This does not mean that any one agency would be assuming the functions of another, because each agency would be able to extract from the data bank that information which is pertinent to its own operation.

It may be possible for other state agencies and private schools to use forms similar to those suggested for public school special education reporting. Obviously, the implementation of such a reporting system will require a considerable coordinating effort. Coordination at the commissioner and director levels will be necessary to resolve the policy variables between agencies, and cooperation at the supervisory level will be required to resolve the "nuts and bolts" problems (reporting formats and procedures, output report formats, priorities, etc.).

VIII. RESOURCE REQUIREMENTS—MANPOWER

The Special Education Section has no staff capability to design an information flow system nor to perform the data element evaluation, data source determination, input forms design, input data preparation, programming, and output format design required for information system implementation. Such assistance would have to be either added to the staff or provided by a source outside the division. It is estimated that this implementation phase for a system internal to the Special Education Section would require about 3 man-months of special education staff effort, 2 man-months of systems analyst time, and 1½ man-months for programming over a period of 18 to 24 months. If the division were to be centrally responsible for coordination of the state-wide system for all agencies an additional ½ man-month of special education staff effort, ½ man-month of systems analyst time, and 1 man-week for programming over a period of 12 months would be required. The capability of the implementation personnel should also include the ability to analyze system requirements, organize and coordinate the efforts of contributors, design formats, and prepare procedures and instructions.

Maintenance of the system (coordination of inputs, quality control, improvements, preparation of special report specifications, etc.) will probably require about 1 man-month of combined effort per year.

IX. PERSONS INTERVIEWED

The people interviewed by the ORI (Leasco) representative, Mr. Carl Koch, during the week of August 4, 1969 were:

Mrs. Rozelle Miller	Coordinator/Supervisor, Division Special Education Section, Division of Instruction
Mrs. Helene S. Tenner	Supervisor of Special Education, Special Education Section, Division of Instruction
Mr. M. Bassford	Coordinator, Data Processing Systems Analyst, Research and Development
Mrs. Doris Remsburg	Principal, Harmony Grove School, Frederick, Maryland
Mr. Philip Stromowsky	Director of Special Education, Montgomery County, Maryland

TABLE 3
SUMMARY OF DATA DEVELOPMENT STATUS
MARYLAND

DATA ELEMENTS			PUBLIC SCHOOLS			STATE INSTITUTIONS			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Not available at state level	Develop procedure and design data collection forms	LEA	Not available at Special Education Section	Coordination of state agencies. Use procedures and forms developed for public schools	State agencies or individual institutions/schools	Voluntary cooperation. Use public school forms and procedures where applicable
		HANDICAPPING CONDITION							
		EDUCATION PROGRAM							
	ON WAITING LIST	AGE	Not available at state level						
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE						Department of Health and Mental Hygiene	
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	AGE						Individual institutions/schools	
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE							
		HANDICAPPING CONDITION							
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Not available	Statistical analysis	State agency responsible for statistics				
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Not available	Professional experience until data is available	Special Education staff				
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Available		Standards, rules and regulations governing the provision of special programs for the handicapped	Not available at Special Education Section		Individual institution/school	Individual school
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available	Extract from "Form A"	LEA and Special Education Section		Written report		

MASSACHUSETTS STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

MASSACHUSETTS STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of this Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Massachusetts and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the imporvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

Education of handicapped children in Massachusetts is accomplished through several state agencies. As a result, there is some overlapping of sharing of educational responsibilities. There is currently no unified information flow between agencies. However, an information flow from local or institutional levels to state agency levels does exist. The data collection procedure is not standardized, and the data are not aggregated in a unified manner. Automated data processing capability is currently inadequate for either a unified data bank or operation of the Manpower Requirements Projection Model. A unified data reporting procedure would be very beneficial to the administration and operation of the state's handicapped child education programs, but a considerable effort will be necessary to accomplish it.

The Bureau of Special Education, the agency responsible for the bulk of special education supervision, has a diversified data collection procedure that varies according to individual handicapping condition programs. Aggregation of data is entirely manual,and there is little compatibility between programs either in the data collection instrument format or the data collected. Some standardization would be most desirable,and an automated data bank would greatly increase the usefulness of the data already collected.

The proposed information system should result in successive improvements in the completeness and the accuracy of the data elements overtime, with validity being achieved within a few annual data cycles.

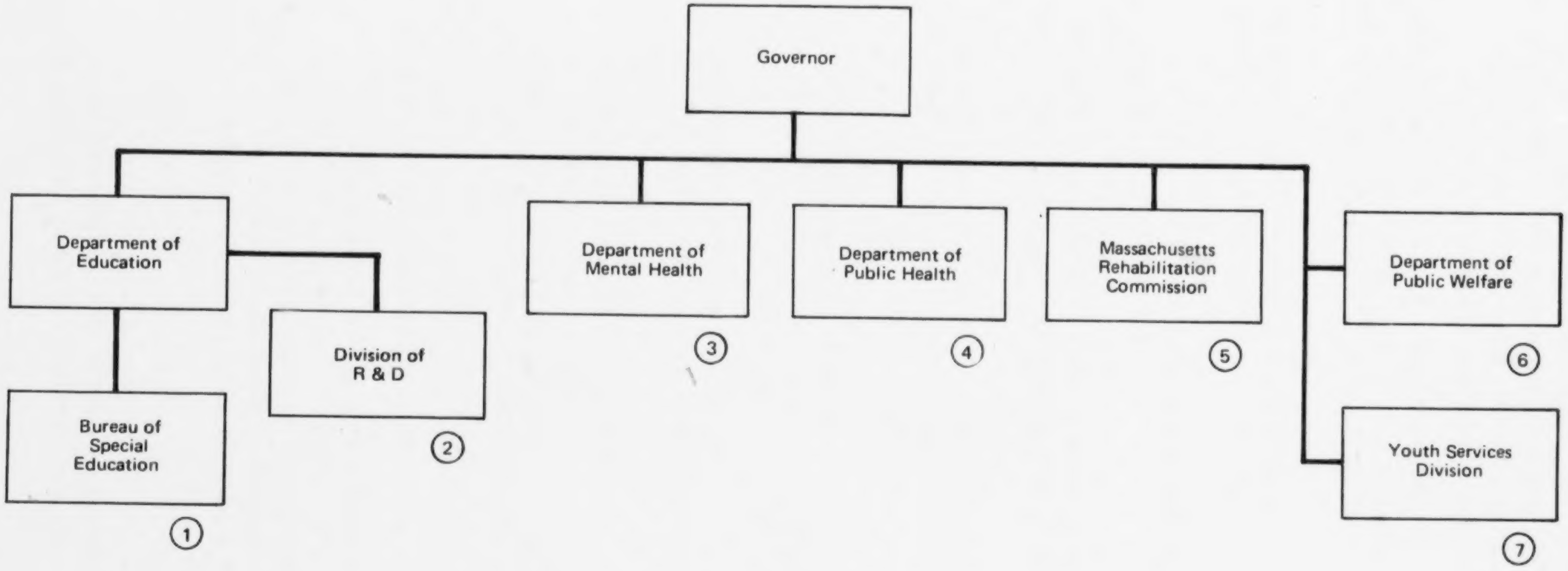
The Bureau, however, does not presently have the staff capability to undertake the implementation of an improved data reporting system and will have to supplement its present staff if it wants to bring about improved information flow.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The relationship of the various agencies that participate in the education of handicapped children in Massachusetts is informally presented in Figure 1. This diagram shows only those agencies which have some responsibility for handicapped child education and is not intended to include all of the many other functions which each of the agencies performs.

The Department of Education, because it operates the public school education system in Massachusetts, is the primary educational agency in the state. In this capacity,it is responsible for the bulk of handicapped child education. It also directs and supervises the education in private schools where handicapped children are being educated at public expense, specifically in the areas of teacher certification and curriculum and facility standards.

The Bureau of Special Education is the specific arm of the Department of Education whose function it is to oversee most of the state's special education programs. It provides the assistance and guidance to the cities and towns


Governor
Department of Education
Bureau of Special Education
①
Division of R & D
②
Department of Mental Health
③
Department of Public Health
④
Massachusetts Rehabilitation Commission
⑤
Department of Public Welfare
⑥
Youth Services Division
⑦

NOTATIONS

1. Handicapped child education in public schools
2. Data processing service for Department of Education
3. Some pre-school work with MR children, but primarily institutional responsibility
4. Education of hospitalized physically handicapped children in two institutions
5. Conducts vocational/occupational training
6. Child guidance; no direct handicapped child educational functions
7. Correctional centers; no direct handicapped child educational functions

FIGURE 1. MASSACHUSETTS STATE AGENCIES RESPONSIBLE FOR THE EDUCATION AND/OR CARE OF HANDICAPPED CHILDREN

within the state so that they may conform to the state laws and regulations governing the education of handicapped children. Operating within the framework of the regular public school educational system, the Bureau provides for the supplemental services required of special education responsibilities.

The lower compulsory age limit for public school special education in Massachusetts is 7 years and the upper limit is not rigidly defined because services can be continued, under certain circumstances, as long as educational improvement is evidenced.

Some handicapped child education programs, outside of the purview of the Bureau of Special Education, are undertaken by other state agencies. The Department of Mental Health participates in educational programs concerning the mentally retarded. Under the auspices of this agency the state conducts preschool (ages 3 to 7) clinical day schools. The other responsibility of Mental Health concerns the institutionalized mentally retarded, principally those in the "custodial" category. The Department of Education and the Department of Mental Health both participate in the determination of candidates for mentally retarded educational services.

The Massachusetts Rehabilitation Commission becomes involved in the education of handicapped persons through its program for providing vocational and occupational training. Generally, these services are available at age 14 1/2, but can be provided whenever counseling indicates that such training is advisable. The objective, insofar as handicapped children are concerned, is to provide useful training for those who might not benefit from further normal secondary school educational curricula.

The Department of Public Health is responsible for providing educational services to those physically handicapped children who are resident in the two institutions which it operates.

Two other state agencies which serve the youth are the Department of Public Welfare and the Youth Services Division. However, neither one of the agencies becomes directly involved in special education. The Department of Public Welfare provides a child guidance service, but the actual education function is fulfilled by one of the foregoing agencies. The Youth Services Division has responsibility for correctional institutions, and little or no actual special education for handicapped children is undertaken by this agency.

The Division of Research and Development under the Department of Education is shown because this is the organization that could potentially serve as the data bank clearing house for the information flow system that would not only provide a service for the Bureau of Special Education, but also for the other agencies concerned with the education of the handicapped.

IV. DATA ELEMENT EVALUATION

Special education programs in Massachusetts are supervised by specialists in each field. The current data requirements are not the same for each handicapping condition, so the formats for the collection of information and the data elements vary by special education program according to the requirements of the supervisor. This diversification of information requirements is further compounded by the division of responsibility for some handicapping conditions among two or more state agencies, and also by the fact that the state uses private school facilities to a considerable extent to supplement its public services.

The development of an information flow pertaining to the handicapped child population in Massachusetts involves more than the determination of data element sources and the prescription of a flow path. The concept of a centralized data base, into which data would be provided in a compatible format so that it can be accumulated and processed for output in a format convenient to the user, must first be accepted by those who would benefit most by its availability—the supervisors and specialists in the various state agencies. With this understanding as a base, the procedure for satisfying the first requirement, that of obtaining uniform types of data, can be developed.

Some specific data elements are necessary to the use of the projection model. The information which these data elements provide may also be very useful to the Bureau of Special Education for other operational analyses. These data elements and their potential sources are discussed in the following paragraphs.

Enrollment

There are general laws which establish that an annual census be made, and reported by November 1, of all persons attending school having handicapping conditions. The format for reporting census results varies according to handicapping condition, but census data collected includes the individual chronological age, the handicapping condition, and the special education consideration (program) under which the child is being served. Typical of the census format is Form SPED-39 (Figure 2) for physically handicapped children, which is submitted to the Bureau of Special Education by the superintendents of schools.

Another form, SPED 4-A (Figure 3), which is not a census form but rather a classroom reporting form for the mentally retarded, contains a level of data element detail which is beyond the basic Manpower Requirements Projection Model needs, but which is probably useful to the MR specialist. This form is prepared at the Local Education Agency (LEA) and is transmitted through the special education area supervisor to the Bureau of Special Education.

The enrollment data elements of age, handicapping condition, and education program are therefore generally available at the state level in the Bureau of Special Education, from each supervisor responsible for a particular handicapping condition. It is frequently at the lowest level of detail, that is, by individual school or district, and there is currently no established procedure for aggregating this data, except by manual effort as the specific need for information occurs.

Form SPED-39. [illegible]

FIGURE 2

THE COMMONWEALTH OF MASSACHUSETTS

The Commonwealth of Massachusetts - Departments of Education and Public Health

Annual Census of Physically Handicapped Children in ______ ______ Reported by ______

Form for listing physically handicapped children attending school.

LAST NAME	FIRST NAME	ADDRESS	DATE OF BIRTH	GRADE IN SCHOOL	DIAGNOSIS	PARENT'S NAME	DOCTOR OR CLINIC TREATING CHILD	SPECIAL EDUCATION OR CONSIDERATION

(REPRODUCED FROM STATE FORM)

D21-6

CERTIFICATE

I hereby certify that all the statements contained in these School Returns are true to the best of my knowledge and belief. A true statement, made under the penalties of perjury.

(Date)

Superintendent of Schools

FIGURE 3

SPED 4-A

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF EDUCATION
Division of Curriculum & Instruction
Bureau of Special Education
182 Tremont Street, Boston 02111

Enrollment
Boys ____ Girls ____ Total ____

City or Town: ______________
Name of School: ______________
Address of School: ______________
Location of Classroom: __________
Teacher's Name ______________
Teacher's Home Address __________

C.A. (Oct.1) Range ____________
I.Q. (Oct.1) Range ____________
Date of this record: ____________
Where are cumulative
records kept? ____________
Special Ed. Certificate # ____________
Waiver Date ____________
School Psychologist ____________

Type of Class: Trainable ( ) Educable ( )
Level of Class: Primary ( ) Intermediate ( ) Advanced ( ) Mixed ( )

Pupil's Name	Age Oct.1, 196_ years and months	Individual Test C.A.	M.A.	Date: I.Q.	Date of last I.Q. Test
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					

(REPRODUCED FROM STATE FORM)

Secondary School Integration
(Number of Periods)

GYM	___	ART	___	ASSEMBLY	___
MUSIC	___	SEWING	___	CAFETERIA	___
SHOP	___	COOKING	___	OTHERS	___

NOTE: Make out in Duplicate: Retain one copy. Send original to Director, Bureau of Special Education, 182 Tremont Street, Boston, Massachusetts 02111

The fact that this information is already collected and available for some handicapping conditions indicates the feasibility of obtaining it for all handicapping conditions, not only for the public school programs for which the Bureau of Special Education is responsible, but also for those programs and institutions for which other state agencies are responsible.

A format, similar to SPED-39, would be useful for collecting the basic enrollment data elements. This form is currently being used to provide the input to a computerized magnetic tape file. The computer produces a printed listing of all the physically handicapped children attending school. No attempt is made to manipulate this data in any order other than the order of input. If other handicapping condition census results were fed into the same data file, and minor data extraction programs were written, this file could produce many useful printouts including an alphabetical listing of children by handicapping condition and school district and a summary count of the number of children in a handicapping condition by single year of age. This last item, which is needed as input for the Manpower Requirements Projection Model, could then be obtained without any additional clerical effort at either the local or state levels.

In addition, the form suggests standardization of the format for application to all handicap programs.

Unserved Handicapped Child Population

Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

There is presently no formal method for accounting for the children who have been diagnosed and are awaiting entrance into special education programs. There are, of course, forms which record the referral of a child for various special educational programs, such as SPED-16 for children unable to attend school, SPEC-13C for emotionally disturbed children, and the SPED 7-11 series for mentally retarded. Each of the forms (found in Section X of this report) a different path in its approval cycle, and so it becomes difficult to accumulate referrals, determine when referrals in fact become diagnostic recommendations awaiting entry, or determine when a child changes status from "waiting list" to entrance into a program. The best present indicator of a waiting list for special education may be obtained from some of the supervisors or specialists who, through their intimate knowledge of their handicapped child programs, can make a close approximation of the diagnosed but unserved child population under their jurisdiction. Of course, this estimate has to include child age as well as handicap condition.

An alternate, and ultimately more accurate , method of obtaining waiting list information can be developed at the local school superintendent.

An examination of the referral, diagnostic, and admission (or assignment) processes indicates that the local superintendent is the pivotal point in the determination of this type of "backlog" information because the referral forms, upon completion of diagnosis by doctors, psychologists, social workers, teachers, school nurses, etc., ultimately funnel through him. The superintendent's office could keep an easily maintained "on waiting list" and "off waiting list" tally by age level and date of diagnosis, and report annually to the Bureau of Special Education. Intrastate transfers from one school district to another would be recorded as an "off" entry from the district being left, and an "on" entry into the new district. The precedence for the superintendent of schools making an annual report on a facet of the special education services is established in the use of Form SPED 17, Report of Child Physically Unable to Attend School, as prescribed in the regulations relative to annual census and education of physically handicapped children.

Attrition

According to the conditions of use specified for Form SPED-39 for physically handicapped children, the census should account for those who have been removed from special education programs since the previous census, by cause for removal including fully recovered, moved, graduated, or death. This information satisfies the attrition requirements of the model. However, this same method is not currently available for all handicapping conditions. Because the procedure already exists for one handicapped group, there is good evidence of the potential for developing this information for all groups.

General Child Population Projections

Under a Federal grant from the Department of Housing and Urban Development, the Executive Office for Administration and Finance derived a "Massachusetts Population Projections to 1975" report. This document makes projections for the 1970 and 1975 time frames of the total population of the state by five year age ranges. Such a projection is not normally prepared under state auspices, and an updating cycle is not anticipated. However, the Division of Research and Development, in its literature concerning "Data Bank for Education," mentions its capability to produce reports on "enrollment projections for individual school systems based upon the percentage of survival technique." With this capability, it should be possible to prepare annual projections, by single year of age, for the state's general child population.

Enrollment Trends

There exists published information on enrollment trends by handicapping condition and special education programs as far back as the 1954-55 school year, or to the start of a program, if it was initiated after that time.

Personnel/Pupil Contact Ratios

Special education teachers are specially certified in this state. Specific curricular training, or its equivalent, must be accomplished for a teacher to obtain full certification to teach in a handicap field. There is a time restricted provision for temporary certification to permit the completion of courses required for full certification. State regulations also prescribe maximum class sizes according to handicapping condition and, where applicable, by pupil age range and special education program. This, of course, establishes the teacher/pupil contact ratio data.

Number and Type of Special-Educators Employed

The determination of special education manpower gap (the difference between projected requirements and present staff) will require the use of the data available on a computerized report currently produced by the Division of Research and Development. This Staff Assignments report includes, among its data, the teacher's name, position, subject, level of teaching assignment, and level of teacher education. With minor programming, a similar report could be produced which would contain only information pertinent to those personnel associated with special education. Furthermore, since the data bank is already established, summary counts by positions, by district, by certification, or any other combination which would assist the Bureau of Special Education in its administrative functions, could be obtained.

V. PROCESSING POTENTIAL

As currently organized, the responsibility for providing the Department of Education with data processing support rests with the Division of Research and Development. This facility is located in Woburn, and is geographically separated from the Bureau of Special Education, located in Boston.

Hardware

The hardware that the Division of Research and Development has available includes a Honeywell 200 with a 16K memory. It is hoped that this may be upgraded to a 32K memory in the near future, which would make it capable of processing the Manpower Requirements Projection Model program. Unless this computer upgrading can be accomplished, other computer sources outside the Department of Education will have to be sought if the model is to be applied in Massachusetts. A FORTRAN compiler is available, as is a sorter, lister and a Digitek 100 scanner.

Personnel

The Division of Research and Development has data bank know-how which currently includes informational systems in the areas of pupil enrollment, finance, and personnel, and it certainly has the technical capability to utilize the projection model. The Division presently provides the Bureau of Special Education with a small amount of service in the form of a printout of pupil enrollments in the physically handicapped area. It would like to provide additional services but, for several reasons, is limited in the services it can provide. First, it is operating under a very restricted budget. Operating funds are provided from Federal sources, and no state funds have been allocated. This, of course, seriously affects its manpower capacity and reduces its ability to serve its "customers." The "customers" in turn, knowing of these limitations, do not create the demand. This constricting spiral of severely limited funds, reduced service, and diminishing demand results in the atrophy of a potentially very useful capability.

Another reason why the information already within the Research and Development data bank is not utilized to its fullest potential is that Special Education has not specified output requirements. Dr. Philbrick, the Director of the Bureau of Special Education, feels that this is primarily because the Special Education personnel are pupil service oriented and the preparation necessary to create usable automated information flow is not within the skills for which they are professionally directed.

Attitude

The theoretical model concept of projecting special education manpower requirements was generally well received by all of the state agency personnel with whom it was discussed. However, the complexity of the problem of integrating the data requirements of the various agencies and handicapping conditions creates a cautious attitude toward the feasibility of the system. This caution is not so much directed toward the model concept, but more toward the development of any unified information flow system. Dr. Philbrick has indicated a desire to undertake the development of a uniform information flow procedure within the Bureau of Special Education and to coordinate this effort with other state agencies, but feels he does not currently have the staff capability for accomplishing this task.

VI. ADDITIONAL FACTORS

The education of the handicapped child in Massachusetts is accomplished through a broad range of programs. There is some overlapping, or sharing, of responsibility among some of the state agencies, particularly in the area of mentally retarded. The Bureau of Special Education is generally responsible for school age educable and trainable mentally retarded, while the Department of Mental Health conducts pre-school programs for the mentally retarded children and is also responsible for the care of the custodially mentally retarded. The Massachusetts Rehabilitation Commission conducts programs, for which the mentally retarded are eligible, in the field of occupational/vocational training.

The state also utilizes its public school system and both in-state and out-of-state, public and private, schools and institutions in its service to the handicapped child population.

The large variety of services provided and the inter-agency involvement in handicapped child education, while contributing to the problems of information flow, reinforce the need for improved methods of accumulating and processing vital information. Those involved in the profession need rapid access to the information necessary in the performance of their function.

The Bureau of Special Education, through the authority of the Department of Education, is in a strong position in relation to the local special education programs. Program approval, teacher certification, and individual approval of applicants to many of the programs places the professional staff in close contact with their areas of specialty and supervision. This position, if used to encourage and guide the proper preparation of data collection forms, could be an advantage in the development of information flows.

VII. RECOMMENDATIONS

The Massachusetts agencies serving the handicapped child population have a current need for coordinated special education information. In the future, as the number of children served increases and the services available to them are expanded, the requirement will become essential to the efficient administration of the state's handicapped child educational programs. The development of a unified information flow that will encompass the total handicapped children services sphere will be a complex effort. A concentration on purpose and objective, and the complete and unrestricted cooperation of both intra-agency and inter-agency personnel involved,will be required. It will need time, testing and modification before it will be a fully responsive system. When the need for information becomes critical, is no time to initiate the steps necessary to obtain it. This is a prime reason for initiating the development of the information reporting procedures as soon as possible.

The broad scope of special education services provided by the state, and the involvement of different state agencies in providing those services, adds to the complexity of the information flow. For this reason it is recommended that the development of a special education flow system be accomplished in two phases.

The first phase is concerned with the Bureau of Special Education itself. A procedure should be developed within the agency that would provide for the consolidation of all information into one data bank. Individual specialists could then extract that information which is pertinent to their operation, but in addition, the Bureau could extract aggregated information which it requires to plan and administer the overall operation. The second phase involves the incorporation of handicapped child information from other state agencies into the one basic data bank.

Some of the steps necessary to the implementation of the first phase are included in the following recommendations; however, a more thorough analysis of all of the details of the Bureau's operations would be necessary before a detailed systems specification could be developed.

a. The Bureau does not currently have the skills and/or capacity within its present staff to do the necessary systems analysis and design coordination and forms design. This capability must be provided to the Bureau, either through addition to the staff, through loan from another agency, or from consultant sources.

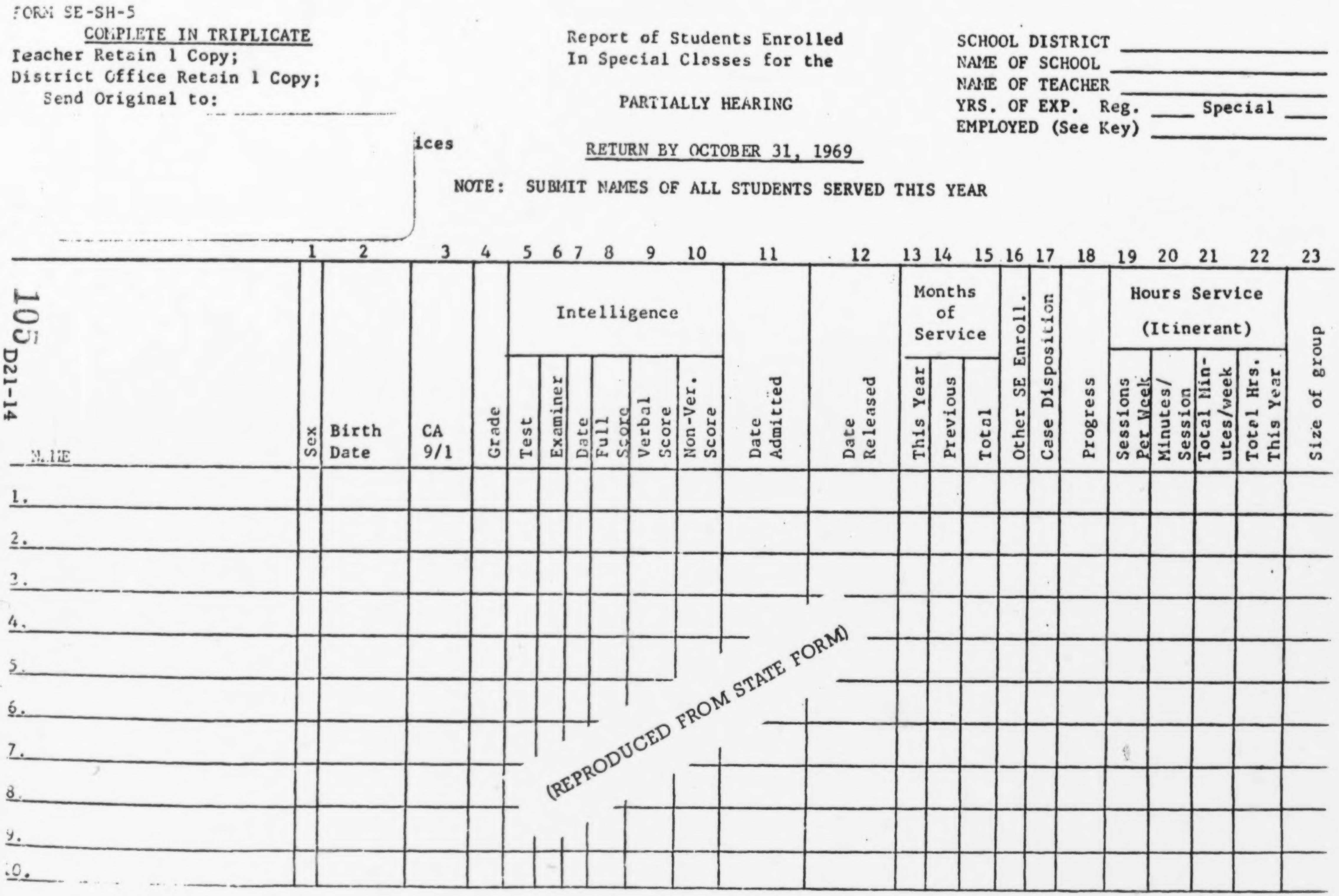
b. The data element requirements for each of the handicap programs, and for the Bureau (including those for the Manpower Requirements Projection Model) must be determined. Examine the need for the information (enrollment count, financial reimbursement, application approval, program approval, etc.) and determine that it will be put to use after it is obtained.

c. Develop standardization in reporting formats as much as possible, so that they provide compatible information. For example, Form SPED-39 (Figure 2), which is currently limited to the physically handicapped census, should be applicable to a census of all other handicapping conditions. Form SPED 4-A (Figure 3), used for collecting data on mentally retarded children, has many data elements common to information which would be required of other handicapping conditions. Evaluate each data element in the light of the usefulness of the information it produces. It is recommended that individual forms be developed for each of the handicapping conditions which are similar in the basic design of the common areas. The example shown in Figure 4 is a form used by another state's special education agency. The information in the upper right hand corner and in columns 1 through 18 is common to each form. Columns 19 through 23 (and in some cases, additional columns on the reverse side) contain information unique to a specific handicapping condition.

d. In a state having the scope of special education programs that are available in Massachusetts, a large volume of information is required to manage the programs. This makes automated data processing almost mandatory for efficient utilization of the data. Information existing on the original individually prepared input sheets is difficult, if not impossible, to sort, rearrange, extract, and analyze.

   Computer programs should be designed that will record these data on magnetic tape and permit their extraction on computer produced reports. The Bureau staff would be expected to specify the format for the printout, but programming capability should be provided by the computer support agency (possibly the Division of Research and Development). The net effect on program supervisors and specialists will be that less time will be spent on the clerical effort of accumulating data and more time will be available for the professional aspects of their job.

e. The present capacity of the Division of Research and Development computer may not be able to contain the recommended data bank. It does not have the capacity to utilize the Manpower Requirements Projection Model.



FORM SE-SH-5

COMPLETE IN TRIPLICATE

Teacher Retain 1 Copy;
District Office Retain 1 Copy;
Send Original to: ______

ices

Report of Students Enrolled
In Special Classes for the

PARTIALLY HEARING

RETURN BY OCTOBER 31, 1969

SCHOOL DISTRICT ______
NAME OF SCHOOL ______
NAME OF TEACHER ______
YRS. OF EXP. Reg. ____ Special ____
EMPLOYED (See Key) ______

NOTE: SUBMIT NAMES OF ALL STUDENTS SERVED THIS YEAR

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
					Intelligence								Months of Service						Hours Service (Itinerant)				
NAME	Sex	Birth Date	CA 9/1	Grade	Test	Examiner	Date	Full Score	Verbal Score	Non-Ver. Score	Date Admitted	Date Released	This Year	Previous	Total	Other SE Enroll.	Case Disposition	Progress	Sessions Per Week	Minutes/ Session	Total Min-utes/week	Total Hrs. This Year	Size of group
1.																							
2.																							
3.																							
4.																							
5.																							
6.																							
7.																							
8.																							
9.																							
10.																							

(REPRODUCED FROM STATE FORM)

FIGURE 4. SAMPLE STANDARDIZED FORM

If this is the only computer support facility that is available to the Bureau of Special Education, it is recommended that it be upgraded to a minimum of 32K storage capacity.

The foregoing recommendations are necessary to the development of an information flow within the Bureau. Additional recommendations critical to the utilization of the Manpower Requirements Projection Model are:

a. The application of a form similar to SPED-39 to all handicap groups is essential so as to obtain enrollment information by handicap condition, individual year of age, and educational program. The prescribed function of recording information pertaining to those who have left the special education programs will satisfy the "attrition data" requirements. This same format may be useful in obtaining enrollment data from other state agencies and private institutions.

b. The procedure for collecting waiting list data, as described in Section IV, should be initiated so as to provide reliable records of those identified as requiring but not yet receiving special education services. This is one of the data elements required for model utilization.

c. The general child population projection, by single year of age, should be prepared by the Division of Research and Development if their capability in this area is as published.

d. The utilization of the existing Personnel Data Bank, which is the source of the existing Staff Assignment Report, is optional. However, it is strongly suggested that the Bureau could make excellent use of this file, not only for the determination of manpower gap, but for many other reasons including special education personnel distribution and educational qualifications. A request to the Division of Research and Development for some reformatted output reports could provide this capability.

The second phase in the implementation of a total information reporting system involves coordination with and the cooperation of other state agencies involved in the education of handicapped children. It would probably be advisable to have the reporting system functioning within the Bureau of Special Education before enlisting the participation of other agencies. However, consideration of their potential data requirements when designing the reporting formats and the data bank record could facilitate their entry into the system when the appropriate time comes.

The object of other agencies participation in the reporting system is to make available data that will represent the entire handicapped child educational area in the state. This will make manpower projections more representative of the state's total requirements, and because of the availability of consolidated data, will be useful to both the legislative and agency administrators in planning the overall direction of state's effort. This does not mean that any one agency would be assuming the functions of another, because each agency would be able to extract from the data bank that information which is pertinent to its own operation.

Obviously, the implementation of such a reporting system will require a considerable coordinating effort. Coordination at the commissioner and director level will be necessary to resolve the policy variables between agencies, and cooperation at the supervisory level will be required to resolve the "nuts and bolts" problems (reporting formats and procedures, output report formats, priorities, etc.).

VIII. RESOURCE REQUIREMENTS—MANPOWER

Data reporting procedures in the Bureau of Special Education are rather diversified at present. Because of this, the development of a unified data reporting system within the Bureau will have to start pretty much from scratch. In terms of Bureau manpower, it is estimated that about 3 man-months of special education staff effort, 4 man-months of system design time, 2 man-months for programming, and 1 man-month of clerical effort over a period of 24 to 30 months would be required to implement the system within the Bureau. If the Bureau is to be centrally responsible for coordination of the state-wide system for all agencies, an additional

and $\frac{1}{2}$ man-month for programming over an additional 18 month period would be required for the implementation of that phase. Maintenance of the system (coordination of inputs, quality control, improvements, preparation of special report specifications, etc.) will probably require about 2 man-months of combined effort per year. The capability of the staff members should include the ability to analyze system requirements, organize and coordinate the effort of contributors, design formats, prepare procedures and instructions, and implement the system.

When the development of the data reporting system was discussed with Dr. James Baker, Director of the Division of Research and Development, Department of Education, he indicated that if his operation were to provide the automated data processing support, he would need to add to his staff one information systems analyst and one system programmer. Of course, the addition of these staff members would probably benefit the Department of Education in that they could be used on other projects as well.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Mr. Carl Koch, during the week of 6 October 1969 were:

Dr. William Philbrick	Director, Bureau of Special Education, Department of Education
Tom Browne	Assistant Director, Bureau of Special Education
Dr. James Baker	Director, Division of Research and Development, Department of Education
John S. Burns	Assistant Director, Massachusetts Rehabilitation Commission
Joseph L. Butler, Jr.	Senior Supervisor, Bureau of Special Education
Benoit H. Charland	Senior Supervisor, PL 89-313, Bureau of Special Education
Helen Church	Supervisor, Physically Handicapped, Bureau of Special Education
Herbert A. Drew	Senior Supervisor, Title VIa, Bureau of Special Education
Catherine Fitzgerald	Senior Supervisor, Title VIa, Western Massachusetts, Bureau of Special Education
James F. Fitzpatrick	Supervisor, Occupational Training Program, Mentally Retarded, Bureau of Special Education
Marjorie J. Frye	Supervisor, Blind and Partially Seeing Children, Bureau of Special Education
John B. McGilvray	Senior Supervisor, Mental Retardation Consult Team, Bureau of Special Education
Marianne McKeon	Senior Supervisor, Deaf, Bureau of Special Education
Marie T. Mulkern	Senior Supervisor, Speech and Hearing, and Perceptually Handicapped, Bureau of Special Education
Edward Peterson	Supervisor, Emotionally Disturbed Children, Bureau of Special Education
John D. Stager	Supervisor of Blind and Partially Sighted, Bureau of Special Education

Jesse Richardson	Massachusetts Director of New England Education Assessment Project
Peggy Pyne	Senior Supervisor in Education, Division of Mental Retardation, Department of Mental Health

X. CURRENT REPORT FORMATS

The following series of reports (SPED 7A through SPED 11) is used in the referral and diagnosis of a candidate for special education.

SPED 7A	Health Record for Child Referred for Placement in SPECIAL CLASS
SPED 11	Report On Candidate Examined For Special Education
SPED 16	Physician's Report of Physically Handicapped Child Unable to Attend School
SPED 13C	Application For Instruction of An Emotionally Disturbed Child

SPED 7A

The Commonwealth of Massachusetts

DEPARTMENT OF EDUCATION — DEPARTMENT OF MENTAL HEALTH
DEPARTMENT OF PUBLIC HEALTH

Health Record for Child Referred for Placement in SPECIAL CLASS

1. NAME ______________________ SEX ________ DATE OF BIRTH ______________
   ADDRESS ______________________________ SCHOOL ______________

2. REASON FOR REFERRAL FOR EXAMINATION. Report of Teacher-Nurse-Psychologist Conference. Attach copy of Psychologist's Report, and nurse's report of home visit.

Additional pages to this documentation include reports by:

- Physician
- Teacher
- School Psychologist

and a synopsis of findings

3. REPORT OF VISION AND HEARING EXAMINATION

***Vision**

Massachusetts Vision Test by authorized personnel:

Date of Test __________ Result __________ Test Performed by ______________

Has child been examined by an ophthalmologist? ______________________

Name of ophthalmologist ______________________

Date of Examination ______________________

Findings and Recommendations ______________________

***Hearing**

Individual Pure Tone Audiometer Test

Date of Test ________ Result ________ Test Performed by ________

Has the child been examined by an otologist? ______________

Name of otologist ______________

Date of examination ______________

Findings and Recommendations ______________

(REPRODUCED FROM STATE FORM)

*If the child has failed a vision or hearing test the parents should be urged to have the child examined by an ophthalmologist or an otologist. The otological examination should include a test by means of a discrete frequency hearing test.

4. REPORT OF DENTAL EXAMINATION

Has the child been seen by the family dentist? ______________________

If not, family should be urged to have this done. If not possible to go to family dentist, child should be referred to the school dental services.

Recommendations of dental examiner:

TO BE COMPLETED BY SCHOOL NURSE

Date ______________

____
Signature of Nurse

/

SPED 10

Confidential

The Commonwealth of Massachusetts

DEPARTMENT OF MENTAL HEALTH — DEPARTMENT OF EDUCATION

SCHOOL RECORD OF CHILDREN REFERRED FOR EXAMINATION FOR SPECIAL EDUCATION

SYNOPSIS OF FINDINGS

Name– **No.–**

Grade– **Age–**

A. Physician's Findings and Recommendations

Name of Physician– **Date of Examination**

B. School Psychologist's Findings and Recommendations

(REPRODUCED FROM STATE FORM)

Name of School Psychologist– **Date of Examination–**

(OVER)

SPED ·11

MASSACHUSETTS DEPARTMENTS OF EDUCATION AND MENTAL HEALTH

REPORT ON CANDIDATE EXAMINED FOR SPECIAL EDUCATION

1. Name of candidate (Last, first, middle)

....

2. Birth date (Month, day, year)   3. Sex

4. Birthplace of candidate

a. Town or city   b. State or country

....

5. Mother's maiden name

....

6. Usual address of candidate

a. Number and street

....

b. Town or city

....

7. School history of candidate

a. Public ( )
b. Parochial ( )
c. Private ( )
d. None ( )

Check one or more and specify

e. Other (specify)....................

....

8. Highest grade attended, if any

....

9. Present school, if any

....

10. Reasons suggesting possible need for special education

....

....

....

11. Result of intelligence test

a. Date tested ....

b. Score: .20 or under ( )
.20- .49 ( )
.50- .79 ( )
.80- .89 ( )
.90-1.09 ( )
1.10-1.19 ( )
1.20 or over ( )

Check one

c. Remarks ....

....

12. Result of eye examination   Check or specify

a. No eye impairment ( )

b. Eye impairment present (specify)

....

....

13. Result of ear examination   Check or specify

a. No ear impairment ( )

b. Ear impairment present (specify)

....

....

14. Result of remainder of general medical examination   Check or specify

a. Other impairment absent ( )

b. Other impairment present (specify)

....

....

....

....

....

(REPRODUCED FROM STATE FORM)

15. Result of psychiatric consultation

a. Emotional impairment absent ( )

b. No consultation ( )

c. Emotional impairment present but not educationally disabling (specify)

Check one or specify

....

....

....

....

d. Educationally disabling emotional impairment present (specify)

....

....

....

....

....

(over)

SPED 11A

THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF EDUCATION
Bureau of Special Education

REQUEST FOR APPROVAL FOR THE PLACEMENT OF A MENTALLY RETARDED CHILD CLASSIFIED UNDER GENERAL LAWS, CHAPTER 71, SECTION 46, IN A SPECIAL PROGRAM OTHER THAN A SPECIAL CLASS

Date ....

Gentlemen:

We herewith respectfully request the approval of the Department of Education for the placement of a child in a special program other than that of a Special Class provided by General Laws, Chapter 71, Section 46.

Name of Child ....

Address ....

C. A. .... M. A. .... I. Q. ....

Date of most recent psychological examination (s): ....

Test(s) Used ....

Note: File with this request SPED forms 7, 7a, 7b, 7c, 8, 9, 9a, 9b, 9c, 10, 11.

Name and title of person who administered most recent psychological examination (s):

....
Name Title

Reasons for requesting placement in a special program other than that of a Special Class provided by General Laws, Chapter 71, Section 46:

USE SEPARATE SHEET (S)

(REPRODUCED FROM STATE FORM)

....
Superintendent of Schools

....
City or Town

SPED 11-B

The Commonwealth of Massachusetts

DEPARTMENT OF EDUCATION
DIVISION OF SPECIAL EDUCATION

REQUEST FOR APPROVAL FOR THE PLACEMENT OF A CHILD WHOSE I.Q. IS ABOVE 79 IN A SPECIAL CLASS UNDER GENERAL LAWS, CHAPTER 71, SECTION 46.

Date ....

Gentlemen:

We herewith respectfully request the approval of the Department of Education for the placement of a child whose I.Q. is above 79 in a Special Class provided by General Laws, Chapter 71, Section 46.

Name of Child ....

Address ....

C. A. .... M. A. .... I. Q. ....

Date of most recent psychological examination (s): ....

Test (s) Used ....

Note: File with this request SPED forms 7, 7a, 7b, 8, 9, 9a, 9b, 9c, 10, 11.

Name and title of person who administered most recent psychological examination (s):

.... Name .... Title

Reasons for the requesting of placement of above named child in a Special Class as provided by General Laws, Chapter 71, Section 46:

USE SEPARATE SHEET (S)

....
Superintendent of Schools

(REPRODUCED FROM STATE FORM)

....
City or Town

SPED-16 (Blue Form)

PHYSICIAN'S REPORT OF PHYSICALLY HANDICAPPED CHILD UNABLE TO ATTEND SCHOOL BY PHYSICIAN IN CHARGE OF CHILD'S MEDICAL CARE

(REPRODUCED FROM STATE FORM)

NAME OF PUPIL ______________________ AGE ____________

ADDRESS ______________________________________

Date:

a. Sent to physician ______________ b. Examination ______________

c. Returned to Superintendent of Schools ______________

d. Sent to Bureau of Special Education ______________

Diagnosis ______________________________________

Is the above pupil able to attend? (Check one)

Regular school class ____________

Class for handicapped children: Full time ________ Part time ________

Is transportation needed? Yes ______ No ______

If unable to attend either regular class or class for Handicapped:

1. Is child able to have a minimum of 4 hours a week of instruction at h[illegible] ____________
2. Should additional hours of assigned home work be limited? __ [illegible] ____________
3. Is child able to sit up to do his school work? ________ [illegible] ____________
4. What restrictions are necessary? ____________ [illegible] ____________

______________________ [illegible] ______________________

5. Is child in a hospital? ________ Is he a[illegible] school work there? ____________
6. Approximately when may the child return to sch[illegible]l? ____________

Is the above disease communicable? ______________________

1. If so, has this child been released from isolation? ____________ Date ____________
2. Is any other member of the household now in isolation because of the above disease? ________

If you are the family physician and this child is being treated by a specialist, or in a clinic, do you get periodic reports of his progress? ______________________

Name of specialist or clinic ______________________

Signed ______________________ M.D.

Address ______________________

Date ______________________

Please return to Office of Superintendennt of Schools.

Address ______________________

Important: RETURN THIS BLANK TO SUPERINTENDENT OF SCHOOLS IN YOUR TOWN OR CITY. No action on home instruction will be taken until this report has been received by the Superintendent of Schools.

SPED-[illegible]

THE COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF EDUCATION

APPLICATION FOR THE INSTRUCTION OF AN EMOTIONALLY DISTURBED CHILD

(REPRODUCED FROM STATE FORM)

To His Excellency the Governor:

I, ... (Name of parent or guardian) of .... (City or Town), in the County of .... (County), and Commonwealth of Massachusetts, respectfully represent to Your Excellency, that my { son, daughter, ward, } .... (Name of child),

is emotionally disturbed, and cannot be properly instructed in the regular public school programs of this Commonwealth.

I therefore respectfully request that Your Excellency will send him (her) to the ....

.... (Name of School or Class)

.... 19 (Date)

.... (Signature of parent or guardian)

The undersigned believes that .... (Name of child), the { son, daughter, ward, }

of .... (Name of parent or guardian), a resident of this town (city), is incapable of receiving instruction in our regular public school programs by reason of being emotionally disturbed, and is therefore entitled to be placed in a school designated by law for emotionally disturbed children.

.... 19 (Date)

.... (Superintendent of Schools)

I hereby certify that the above-named .... (Name of child)

is not capable of receiving instruction in the regular public school programs by reason of being emotionally disturbed, is free from all contagious diseases and is a proper subject for instruction in a special school for emotionally disturbed children at the expense of the Commonwealth.

.... 19 (Date)

.... M. D.

Please submit with this application a comprehensive statement of the child's mental condition. This shall include a complete diagnosis and prognosis.

I hereby certify that .... (Name of parent or guardian)

is a legal resident of .... (City or Town) Massachusetts.

.... 19 (Date)

.... (City or Town Clerk)

D21-25

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
MASSACHUSETTS

DATA ELEMENTS			PUBLIC SCHOOL			OTHER STATE AGENCIES			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Available for some handicapping conditions	Standardize census format and apply to all handicap conditions	Local school district superintendent	Available at institutional level	Transmit to state agency and incorporate in central data bank	Individual institution	Report data to Bureau of Special Education on census format
		HANDICAPPING CONDITION							
		EDUCATION PROGRAM							
	ON WAITING LIST	AGE	Not statistically available	Maintain waiting list tally at district superintendent level					Maintain waiting list at school Report to Bureau of Special Education
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available	Record date of diagnosis on waiting list tally		Available at state agency	Transmit to central data bank	State agency	Not applicable
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	AGE	Not available	Code and enter on census report					Code and enter on Census Report to Bureau of Special Education
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Available for some handicapping conditions			Available at institutional level	Transmit to state agency and incorporate in central data bank	Individual institution	
		HANDICAPPING CONDITION							
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Not available	Utilize Division of Research and Development capability	Division of Research and Development, Dept. of Education				
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Analytical capability and statistical data are available		Bureau of Special Education				
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Available	Not applicable	Bureau of Special Education	Available at institutional level	Not applicable	Individual institution	Available from individual school upon request
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Not readily available	Program for extraction from Personnel Data Bank	Division of Research and Development, Department of Education				

MICHIGAN STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

MICHIGAN STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Michigan, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

Michigan has the capability now to collect most of the data required to utilize the model. However, data being collected currently, and in the immediate past, are neither categorized as required for the model, nor in form suitable for input to the model. Beginning with the current school year, all forms which are received by the Special Education Division will be keypunched. The addition of items or changes to several forms could provide the complete data as required. The Special Education people at the state level are very reluctant to require additional forms from the local districts. A major problem in model implementation will be the inclusion of the required data elements in flow systems already in existence.

The Michigan Legislature has passed legislation requiring each school district to conduct an exhaustive survey to identify all handicapped children within their district. This census will then be used to develop the state overall plan for servicing handicapped children. Presently, this is viewed as a one-time count, but an effort at continued identification of the handicapped is possible.

The Michigan State Board of Education through its Administrative Services Bureau, has adequate data preparation, analysis, and programming talent to support the model. Adequate computer facilities are available through the Research Bureau or the Department of Mental Health, and both indicated a willingness to implement the model. The computer facility in the Administrative Services Bureau will more than likely be upgraded to the extent that the model could be supported there by the time the data is available.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The relationship of the various agencies that participate in the education of handicapped children in Michigan is informally presented in Figure 1. This diagram shows only those agencies which have some responsibility for handicapped child education and is not intended to include all of the many other functions which each agency performs.

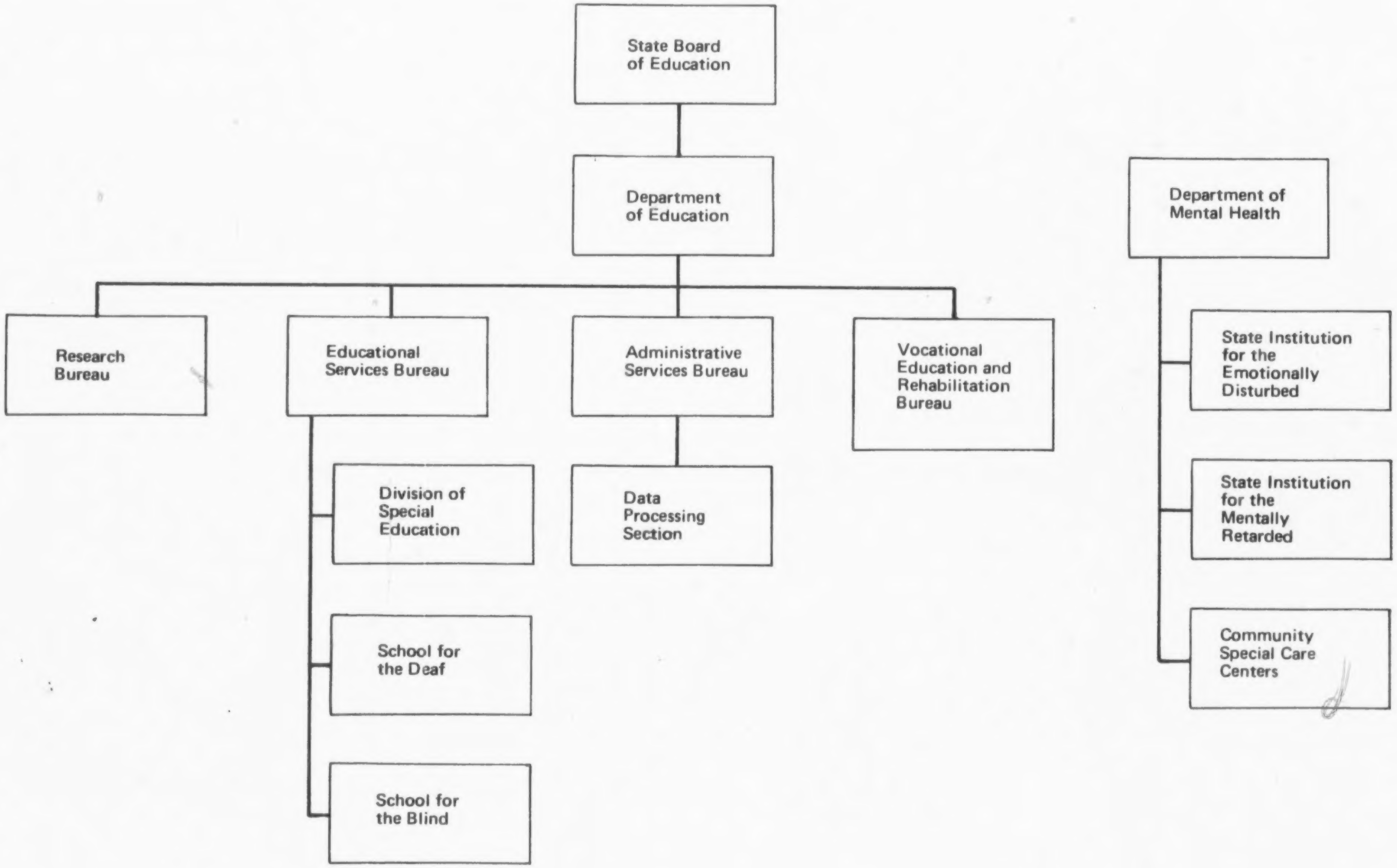

State Board of Education
Department of Education
Research Bureau
Educational Services Bureau
Administrative Services Bureau
Vocational Education and Rehabilitation Bureau
Division of Special Education
School for the Deaf
School for the Blind
Data Processing Section
Department of Mental Health
State Institution for the Emotionally Disturbed
State Institution for the Mentally Retarded
Community Special Care Centers

FIGURE 1. RESPONSIBILITY FOR SPECIAL EDUCATION IN MICHIGAN

The primary state educational agency is the Department of Education, operated for the State Board of Education by the Superintendent of Public Instruction. State schools for the deaf and the blind and the Vocational Education and Rehabilitation programs are controlled by the Department of Education. Private boarding schools, licensing, and teacher certification are among the other responsibilities of this department.

There are five bureaus within the State Department of Education. The Division of Special Education is one of five divisions within the Educational Services Bureau. The other divisions are: Curriculum, Library, School for the Deaf, School for the Blind. All special education teachers in the public school system, and licensed private schools, must be approved for certification by the Division of Special Education.

The Division of Special Education maintains close liaison with the state institutions and the Vocational Education and Rehabilitation Bureau. Special Education provides staff consultants to these agencies to serve the children with various handicapping conditions. Special Education also provides guidance to community-organized centers which train children having certain handicapping conditions. These centers may or may not employ certified teachers.

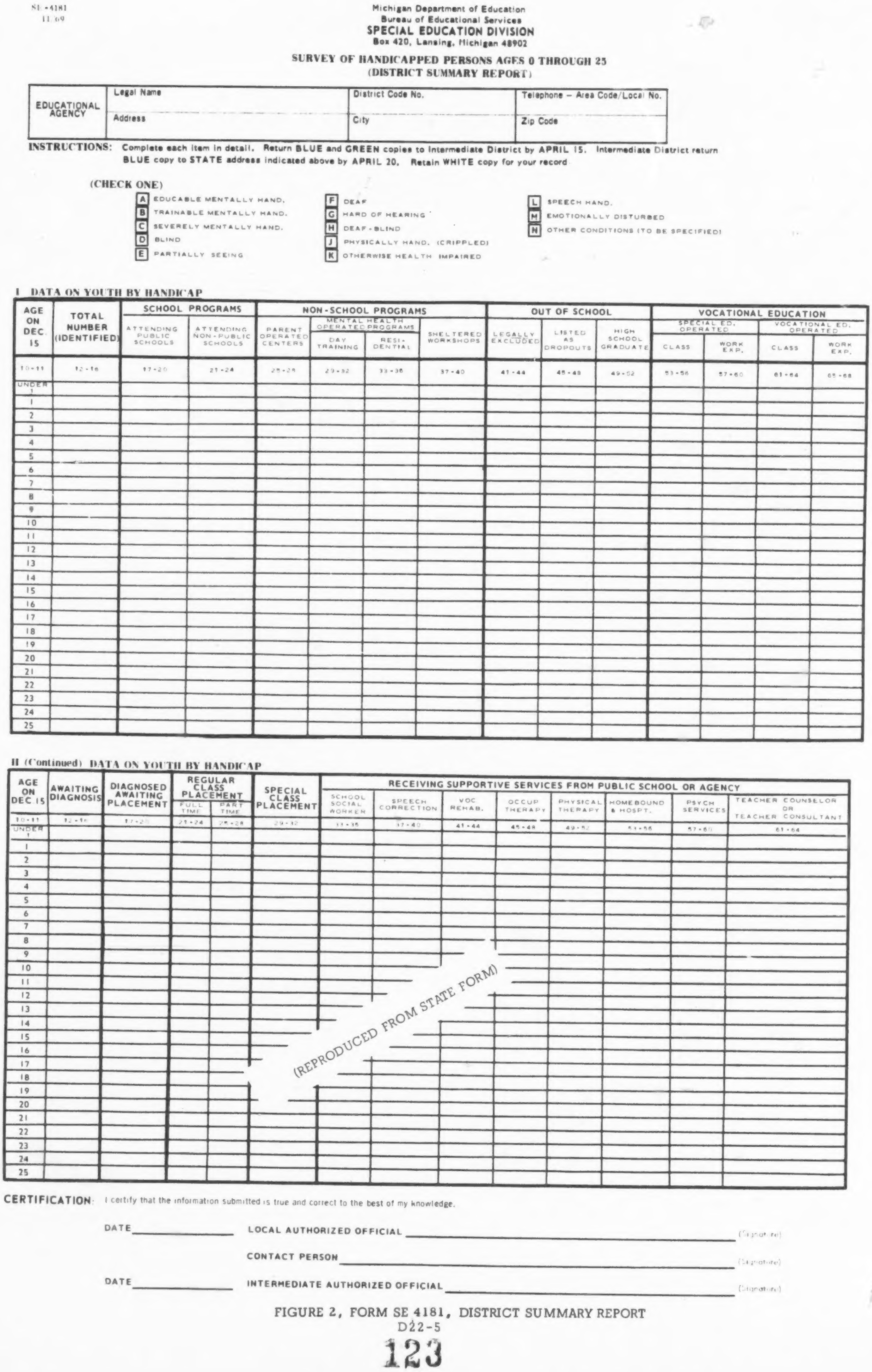
The Department of Mental Health operates the state institutions for the mentally handicapped and emotionally disturbed, and also supports special care centers throughout the state.

The Research Bureau, while having no direct special education responsibilities, is important to the analysis objectives because of its responsibility for forms control and overall systems analysis aimed at streamlining reporting procedures and eliminating duplicate data collection.

IV. DATA ELEMENT EVALUATION

Some specific data elements are necessary to the use of the Manpower Requirements Projection Model. The information which these data elements provide may also be very useful to the Division of Special Education for other operational analyses.

By virtue of the special survey authorized and required by the state legislature, the potential for the development in Michigan of the required data elements is very good. The purpose of the survey is to identify all of the handicapped children in the state so that an overall state plan can be developed which will ensure that all handicapped children are served. Two forms, SE-4180 and SE-4181, have been developed by the Special Education Division for collecting this survey data. The SE-4180 (see Section X, page D22-18) is used by the local districts and contain the identity of the individual children. This data is then summarized on Form SE-4181, Figure 2, and forwarded to the state level.



SE-4181
11/69

Michigan Department of Education
Bureau of Educational Services
SPECIAL EDUCATION DIVISION
Box 420, Lansing, Michigan 48902

SURVEY OF HANDICAPPED PERSONS AGES 0 THROUGH 25
(DISTRICT SUMMARY REPORT)

EDUCATIONAL AGENCY	Legal Name	District Code No.	Telephone – Area Code/Local No.
	Address	City	Zip Code

INSTRUCTIONS: Complete each item in detail. Return BLUE and GREEN copies to Intermediate District by APRIL 15. Intermediate District return BLUE copy to STATE address indicated above by APRIL 20. Retain WHITE copy for your record

(CHECK ONE)

- A EDUCABLE MENTALLY HAND.
- B TRAINABLE MENTALLY HAND.
- C SEVERELY MENTALLY HAND.
- D BLIND
- E PARTIALLY SEEING
- F DEAF
- G HARD OF HEARING
- H DEAF-BLIND
- J PHYSICALLY HAND. (CRIPPLED)
- K OTHERWISE HEALTH IMPAIRED
- L SPEECH HAND.
- M EMOTIONALLY DISTURBED
- N OTHER CONDITIONS (TO BE SPECIFIED)

I DATA ON YOUTH BY HANDICAP

AGE ON DEC. 15	TOTAL NUMBER (IDENTIFIED)	SCHOOL PROGRAMS		NON-SCHOOL PROGRAMS				OUT OF SCHOOL			VOCATIONAL EDUCATION			
		ATTENDING PUBLIC SCHOOLS	ATTENDING NON-PUBLIC SCHOOLS	PARENT OPERATED CENTERS	MENTAL HEALTH OPERATED PROGRAMS		SHELTERED WORKSHOPS	LEGALLY EXCLUDED	LISTED AS DROPOUTS	HIGH SCHOOL GRADUATE	SPECIAL ED. OPERATED		VOCATIONAL ED. OPERATED	
					DAY TRAINING	RESI-DENTIAL					CLASS	WORK EXP.	CLASS	WORK EXP.
10-11	12-16	17-20	21-24	25-28	29-32	33-36	37-40	41-44	45-48	49-52	53-56	57-60	61-64	65-68
UNDER 1														
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														

II (Continued) DATA ON YOUTH BY HANDICAP

AGE ON DEC 15	AWAITING DIAGNOSIS	DIAGNOSED AWAITING PLACEMENT	REGULAR CLASS PLACEMENT		SPECIAL CLASS PLACEMENT	RECEIVING SUPPORTIVE SERVICES FROM PUBLIC SCHOOL OR AGENCY							
			FULL TIME	PART TIME		SCHOOL SOCIAL WORKER	SPEECH CORRECTION	VOC REHAB.	OCCUP THERAPY	PHYSICAL THERAPY	HOMEBOUND & HOSPT.	PSYCH SERVICES	TEACHER COUNSELOR OR TEACHER CONSULTANT
10-11	12-16	17-20	21-24	25-28	29-32	33-36	37-40	41-44	45-48	49-52	53-56	57-60	61-64
UNDER 1													
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													

(REPRODUCED FROM STATE FORM)

CERTIFICATION: I certify that the information submitted is true and correct to the best of my knowledge.

DATE ____________ LOCAL AUTHORIZED OFFICIAL ______________________________ (Signature)

CONTACT PERSON ______________________________ (Signature)

DATE ____________ INTERMEDIATE AUTHORIZED OFFICIAL ______________________________ (Signature)

FIGURE 2, FORM SE 4181, DISTRICT SUMMARY REPORT

As presently viewed, this survey is a one-time operation, but the planning required, the communication channels opened and contacts made, the data processing procedures and reporting formats developed to support this study, and the awareness of the value of having such data, will make it much easier to obtain the data in subsequent years. If the form content could be continued in the information flow many of the model data elements would be available. These data elements and their potential sources are discussed in the following paragraphs.

Number of Children Identified As Needing Special Education

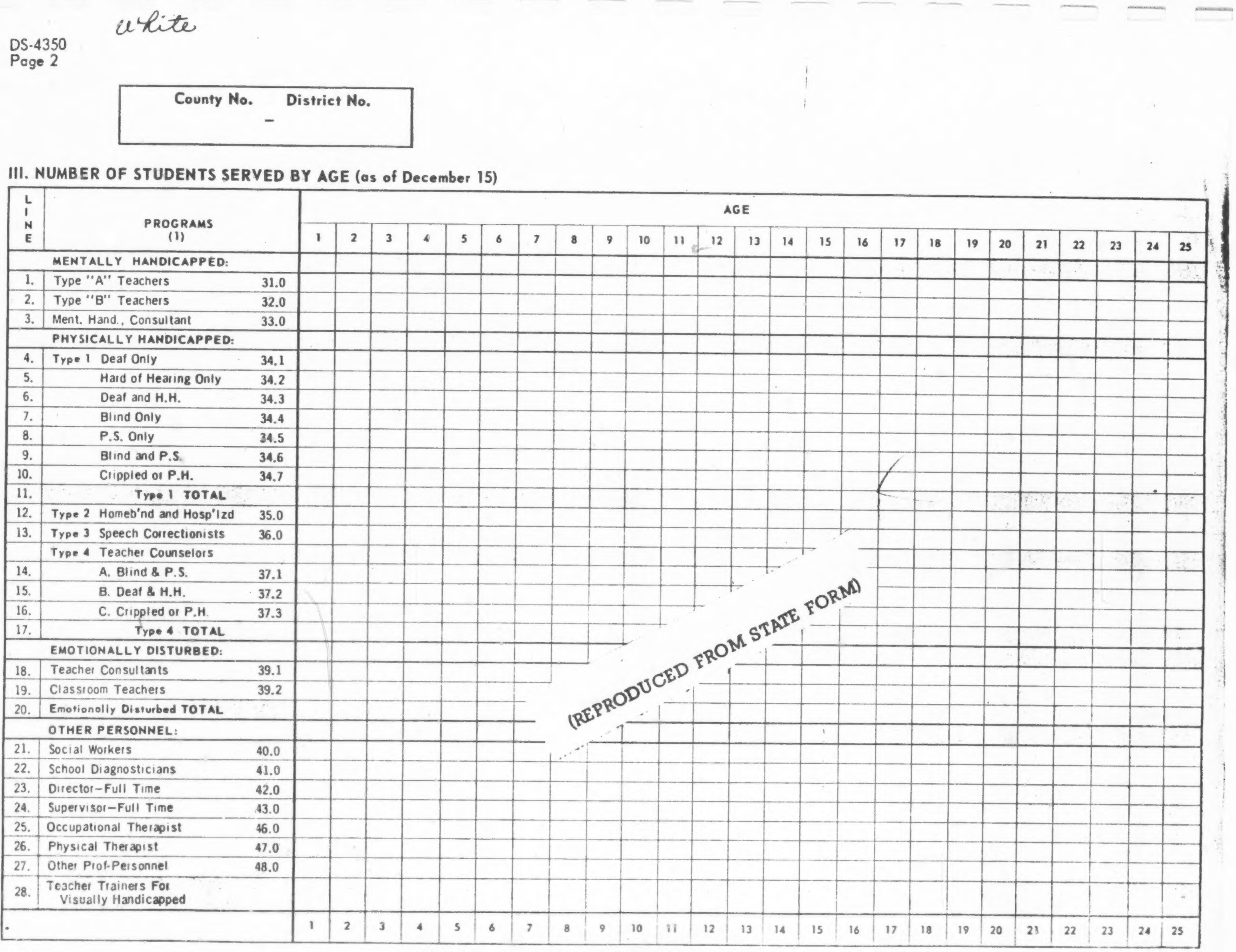
There are two categories of information pertinent to the identified handicapped child population: those enrolled in special education programs, and those diagnosed as needing special education services and waiting to be enrolled.

Enrollment. The enrollment data currently reported to the state level is contained in Form DS-4350, "Special Education Membership and Personnel Report As Of December 15, 1969 (page 2 is shown in Figure 3). It includes summary enrollment figures by handicapping condition and age. This form is submitted by each school district to the Administrative Services Bureau where the data is keypunched for automated data processing. The information is used primarily for cost reimbursement to the local school district for the special education programs conducted in that district.

The information contained on this form does not contain all of the enrollment information necessary to obtain full Manpower Requirements Projection Model utilization. The model contains the capability to consider the effect on manpower requirements caused by variations in personnel/pupil contact ratios based upon the type of educational program. Although a variety of types of programs (residential special class, full-time special education in a day class part-time special education and part-time regular education class, itinerant, etc.) are available in Michigan, data by education program is not available on Form DS-4350.

It does not seem practical to modify Form DS-4350 to collect the required data if the survey Form SE-4181 could be utilized on a regular basis. Form DS-4350 contains no provision for educational program type identification and would require a very space consuming modification to show both resident and nonresident pupils by single year of age. In addition, there are other data element requirements that could not be satisfied by the Form DS-4350 format.

On the other hand the Form SE 4181 already contains some provision (Section I, 53-64 and Section II, 21-32) which relate to educational program types.



DS-4350
Page 2

White

County No. District No.
-

III. NUMBER OF STUDENTS SERVED BY AGE (as of December 15)

LINE	PROGRAMS (1)		AGE																								
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	MENTALLY HANDICAPPED:																										
1.	Type "A" Teachers	31.0																									
2.	Type "B" Teachers	32.0																									
3.	Ment. Hand., Consultant	33.0																									
	PHYSICALLY HANDICAPPED:																										
4.	**Type 1** Deaf Only	34.1																									
5.	Hard of Hearing Only	34.2																									
6.	Deaf and H.H.	34.3																									
7.	Blind Only	34.4																									
8.	P.S. Only	34.5																									
9.	Blind and P.S.	34.6																									
10.	Crippled or P.H.	34.7																									
11.	**Type 1 TOTAL**																										
12.	**Type 2** Homeb'nd and Hosp'lzd	35.0																									
13.	**Type 3** Speech Correctionists	36.0																									
	Type 4 Teacher Counselors																										
14.	A. Blind & P.S.	37.1																									
15.	B. Deaf & H.H.	37.2																									
16.	C. Crippled or P.H.	37.3																									
17.	**Type 4 TOTAL**																										
	EMOTIONALLY DISTURBED:																										
18.	Teacher Consultants	39.1																									
19.	Classroom Teachers	39.2																									
20.	**Emotionally Disturbed TOTAL**																										
	OTHER PERSONNEL:																										
21.	Social Workers	40.0																									
22.	School Diagnosticians	41.0																									
23.	Director—Full Time	42.0																									
24.	Supervisor—Full Time	43.0																									
25.	Occupational Therapist	46.0																									
26.	Physical Therapist	47.0																									
27.	Other Prof-Personnel	48.0																									
28.	Teacher Trainers For Visually Handicapped																										
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

(REPRODUCED FROM STATE FORM)

FIGURE 3. PAGE 2 OF FORM DS 4350

Waiting List. The other facet of the identified handicapped child population, those that have been identified and are awaiting special education services, must be considered when planning for total services required.

Waiting lists of children diagnosed as requiring special education services, if they exist, are not forwarded to the Division of Special Education. Private agencies and state institutions may have waiting lists, but their accuracy for model purposes may be suspect, because some of the children on those waiting lists may very possibly be receiving some special education services within the local district, which would result in a duplication of count.

The amount of special education services required for the total Michigan handicapped child population obviously cannot be determined by summing the enrollments and the current waiting list data. In lieu of any better current buidelines, prevalence rates could be used to estimate potential total service requirements.

Using prevalence rates is, at best, an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data such as the aforementioned survey and making successive approximations.

The mechanism for reporting waiting list data is available in the format of Form SE-4181 in Section II, column 17-20.

Number of Children Moving Into/Out Of Identified Handicapped Child Population

The movement of children within the handicapped child population needs to be traced to determine the effects of annual incidence, transfer and attrition on the service required.

Newly Diagnosed. The purpose of obtaining information pertaining to children newly diagnosed in a year is to develop some information on the annual incidence rates. Where diagnosis and identification are limited to capability to serve, a count of new enrollments in special education programs is the equivalent to a count of the newly diagnosed. However, this is a minimal condition and provision should be made for collecting newly diagnosed data pending the time when diagnosis is less restricted by service capability, funds, or availability of qualified personnel.

The local district is the focal point for the accumulation of data on handicapped children newly identified through public school screening/diagnostic procedures. Data is not necessarily available though on referrals originating from other screening activities such as parents, private physicians, clinics, etc. If all new diagnoses could be channeled into a central point, the local district for example, then duplications could be eliminated and a reasonably accurate count of newly diagnosed could be recorded.

A minor modification, consisting of the addition of a column, could be made to Form SE-4181 which would facilitate the recording of this information.

Intrastate Transfers. Transfers within the state of children receiving special education services, while they do not change the state's total handicapped child population, should be accounted for separately. This will prevent a transfer from one district being counted as a new enrollee in another district, thus creating an error in annual incidence count. It will also prevent an intrstate transfer out of a district from being counted as an attrition from the state's total handicapped child population which would inflate the attrition figures. An analysis of transfers could also reveal the trend of movement according to the quality of special education services offered by various localities.

The addition of a split column to Form SE-4181 for intrastate transfers in and out will facilitate the recording of this type of data.

Attritions. Attritions from the special education programs constitute the deductions from the handicap child population. Form SE-4181 provides for a form of attrition data under the "Out of School" title, in Section I, columns 41 through 52. The attrition census listed are legally excluded, listed as dropouts, and high school graduate. An additional cause which might be of value when analyzing the accomplishment of special education programs would be "returned to regular education procedures".

The State Plan for Special Education calls for subsequent evaluation of the programs. One significant factor in this evaluation would be what happened to the children who were served by it. Available attrition data, including cause of attrition, would be valuable in this analysis.

General Child Population Projections

The projections of general child populations for the number of years forward for which manpower requirement projections would be made by individual year and by single year of age, is a model data element requirement. These are the values that validated incidence rates will be applied to in the forward projection of the handicapped child population.

These general child population projections may be obtainable from the Michigan School Finance Study Reports and other population projections made by Michigan state planning agencies. The Bureau of Research may be of some assistance in obtaining this data.

Data Used to Simulate Special Education Requirements

The Manpower Requirements Projection Model has the capability of simulating manpower requirements based upon selected variations of input data. Two such data elements are education program mix trends and personnel/pupil contact ratios. A simulated change in education program mix (for example, returning blind and deaf children to regular classes supplemented by resource-room work instead of special full-time classes) can be analyzed for its effect on manpower requirements. A proposed change in teaching technology that could affect the teacher/pupil contact ratio can be simulated to determine its effect on manpower requirements.

Educational Program Mix Trends. At the present time the lack of detailed data from the local level deprives the Special Education Division of the informational base from which to develop analysis of trends based upon program mix. However, the data from Form 4181 should provide the necessary historical data to provide the basis for future analytical efforts pertaining to enrollment and education program mix trends. In the interim, the staff may be able to derive some model input data based upon experience.

Personnel/Pupil Contact Ratios. Maximum teacher loads are established and are summarized by the Department of Education in the "Administrative Guide For Establishing Special Education Programs and Pupil Personnel Services For Handicapped Children," Form SE-201 (see Section X, pages D22-19 and D22-20).

Number and Type of Special Educators Employed

The determination of special education manpower gap (the difference between projected requirements and present staff) requires an identification of the number of special education teachers, by type of handicap condition and education level taughts.

Information for the determination of present staff count is available in the automatic data processing system as a result of the input from a form completed by each school district (see Section X, page D22-21. The area of specialty is shown under the column headed "Prog". It is assumed that since this data is already available, totals by speciality can be extracted.

The following statements present a recapitulation of the availability of the data elements needed for utilization of the Manpower Requirements Projection Model.

1. Form DS-4350 does not seem adaptable as a collection instrument for the required data.
2. Forms SE-4180 and SE-4181 are designed to collect much of the needed data and can be easily modified to collect that which would be missing. It could be used by other state agencies to report handicap statistics pertaining to institutions within their jurisdiction. It could also be used, on a voluntary basis, by private schools. All of the following data elements could be obtained directly from a modified version of the form.
    a. Number of children enrolled by age, handicapping condition, and educational program type
    b. Number of children on the waiting list, by age and handicapping condition

  c. Number of children diagnosed annually, by age and handicapping condition

  d. Intrastate transfers (in and out of the local district), by age and handicapping condition

  e. Attrition, by age, handicapping condition, and cause.

3. Yearly projection, by single year of age, for the general child population may be capable of development from existing statistics, if in fact not already available.

4. Education program mix trends would have to be based upon staff experience until such time as historical data were available for use as a base.

5. Personnel types and teacher loads are presently available.

6. Special education personnel inventory, by personnel type is already available.

Although modification suggestions were directed at Form 4181 these same suggestions would necessarily apply to the Form 4180 because the Form 4181 summarizes Form 4180 content.

V. PROCESSING POTENTIAL

Hardware

Adequate computer facilities are available to execute the model, provided proper liaison is maintained. The Bureau of Research, within the State Department of Education, has access to a large CDC 6600 computer system through a rental arrangement with Michigan State University. Personnel contacted within the Bureau expressed an interest in the model, and appear to be willing to become involved in applying the model.

The Department of Mental Health has some of its record keeping computerized, and is adding more. They have access to a Burroughs B 5500 computer system which is operated by the State Highway Department.

The Administrative Services Bureau within the State Department of Education, has a Honeywell 200 with 5 tapes and 24,000 words of storage, which is used for general reporting and is scheduled very tightly. It was indicated that upgrading of the system would take place if required by the load. This system currently will not support the model.

Personnel Potential

Routine reports are keypunched at the present time by the Data Processing Section within the Administrative Services Bureau and there is a forms coordinator in the Research Bureau who is aware of the keypunch requirements. Therefore, physical data preparation for supporting the model should present no problems. All computer facilities discussed have been in operation for some time, and no problems in operation of the ADP system are expected.

Four separate organizations were contacted concerning the support and operation of the model, these being the Special Education Department, the Research Bureau, the Department of Mental Health, and the Data Processing Section of the Administrative Services Bureau. The Data Processing Section is not concerned with evaluation and analysis of the output. The Research Bureau is interested, and the analyst contacted there is capable of understanding and utilizing the model. The same situation exists in the Department of Mental Health. There are several persons within the Special Education Department who are quite capable of analysis and evaluation of the model.

Acceptance of Model Concept

Overall, the State of Michigan has a positive attitude toward the information requirements. Much data is being collected currently, and the state legislature has enacted legislation requiring the collection of even more data in special education. The Department of Mental Health and the Research Bureau have expressed interest in utilizing the mathematical model, and appear willing to cooperate with the Special Education Department in this undertaking. The Special Education Department, while appreciative of the need for additional information pertaining to the education of the handicapped, indicated no strong interest in using the projective and simulative features offered by the model.

VI. ADDITIONAL FACTORS

The Governor of Michigan appointed a commission to make recommendations concerning the organization and operation of the state school system. This committee submitted its recommendations to the Governor early in October, 1969 and they provided for some significant changes. The effect on special education programs, if any, will not be known until final legislative decisions have been obtained. However, the recent actions of the legislature tend to show strong support for educating the handicapped, and it is expected to continue.

Currently, local school districts enjoy a relatively high degree of independence, and this fact sometimes makes data collection more difficult. Strengthening of state control over local school districts is inherent in the recommendations presented to the Governor by the special commission, and if adopted by the legislature should be, indirectly at least, of help in implementing an improved information flow system.

The Research Bureau, within the Department of Education, is currently studying the data flow within the department. The purpose of the study is to define data elements, eliminate duplications, and develop a more unified, con-consistent data reporting system for the entire department.

VII. RECOMMENDATIONS

The development of an information flow pertaining to the handicapped child population involves more than the determination of data element sources and the prescription of a flow path. The concept of a centralized data base, in which data would be provided in a compatible format so that it can be accumulated and processed for output in a format convenient to the user, must first be accepted by those who would benefit most by its availability, that is, the superivsors and specialists in various state agencies, and perhaps the legislature, who would be able to obtain consolidated and coordinated data pertaining to either specific or summarized handicap education areas.

The agencies serving the handicapped child population have a current need for coordinated special education information. In the future, as the number of children served increases and the services available to them are expanded, the requirement will become even more essential to the efficient administration of the state's handicapped child education programs.

The development of a unified information flow that will encompass the total handicapped children services sphere, whether it be a subsystem within the overall Department of Education information system, or an independent Special Education System, is a complex effort. A concentration on purpose and objective, and the complete and unrestricted cooperation of both intraagency and interagency personnel involved are required. Time, testing and modification are required to develop a fully responsive system.

The current study being conducted by the Research Bureau could materially benefit the special education information flow. The Bureau has the technical capability to analyze, evaluate and design the forms, procedures, and programs necessary to make the information system functional. Special Education should participate in the determination of their data element requirements, including a consideration of those elements needed to utilize the Manpower Requirements Projection Model.

The involvement of different state agencies in providing special education services, adds to the complexity of creating a unified information flow. For this reason it is recommended that the development of a flow system capable of providing total handicapped child data be accomplished in two phases.

The first phase is concerned with the Division of Special Education itself. A procedure should be developed within the agency that would provide for the consolidation of all information into one data bank. Individual specialists could then extract that information which is pertinent to their operations, and in addition, the Division could extract aggregated information which it requires to plan and administer the overall operation. The second phase involves the incorporation of handicapped child information from other state agencies into the same basic data bank.

Some of the steps critical to the implementation of the first phase are included in the following recommendations.

a. The forms modifications suggested in Section IV should be adopted or incorporated. Forms SE-4180 and 4181 should be executed by the local school districts annually. Each community agency which serves a handicapped group should be supplied with the Form SE-4180 on which they can record their data. Every effort should be made to maintain close liaison with these agencies by the local special education personnel, with periodic follow-ups to collect the forms. This implies that the local school district special education activity is the funnel through which data concerning the handicapped is forwarded to the state levels. Many of these agencies are supported by the Department of Mental Health, and therefore, good communications between the Department of Mental Health and the Division of Special Education is necessary.

   The data thus collected by the local level should then be summarized, and forwarded to the state level on the SE 4181 form.

b. Encourage the diagnosis at the local level of candidates for special education services even though the capability to serve does not presently exist. Knowing the service backlog is an important element of forward planning. Form SE-4181 could be used to report this essential data.

c. The Special Education Division should request that the state agency responsible for population statistics prepare a projection of the general child population by individual year of age. This projection should be updated annually.

The second phase in the implementation of a total information reporting system involves coordination with, and the cooperation of, other state agencies involved in the education of handicapped children. It would probably be advisable to have the reporting system functioning within the Division of Special Education before enlisting the participation of other agencies. However, consideration of their potential data requirements when designing the reporting formats and the data bank record could facilitate their entry into the system when the appropriate time comes.

The object of other agencies' participation in the reporting system is to make available data that will represent the entire handicapped child educational area in the state. This will make manpower projections more representative of the state's total requirements, and because of the availability of consolidated data, will be useful to both the legislature and agency administrators in planning the overall direction of the state's effort. This does not mean that any one agency would be assuming the functions of another, because each agency would be able to extract from the data bank that information which is pertinent to its own operation.

It may be possible for other state agencies and private schools to use forms similar to those used for public school special education reporting. Obviously, the implementation of such a reporting system will require a considerable coordinating effort. Coordination at the commissioner and director levels will be necessary to resolve the policy variables among agencies, and cooperation at the supervisory level will be required to resolve the "nuts and bolts" problems (reporting formats and procedures, output report formats, priorities, etc.).

VIII. RESOURCE REQUIREMENTS—MANPOWER

It is difficult to estimate the manpower required to institute an information flow that will support the Manpower Requirements Projection Model, when an evaluation process is apparently already under way to revamp the information flow within the Department of Education. If the necessary data elements were added in the course of a redesign of an on-going system, little additional effort would be required. However, if the necessary data elements were to be incorporated in the on-going system, then some manpower effort will be required. The capability to perform the data element evaluation, data source determination, input forms design, input data preparation, programming, and output format design is required for information system implementation. It is estimated that this implementation phase for a system internal to the Division of Special Education would required about 1 man-month of special education staff effort, 2 man-months of systems analyst time, and 1 man-month for programming over a period of 12 to 18 months. If the division were to be centrally responsible for coordination of the state-wide system for all agencies, an additional $\frac{1}{2}$ man-month each for the special education staff, systems analyst and programmer time over a period of 12 months would be required. The capability of the implementation personnel should also include the ability to analyze system requirements, organize and coordinate the effort of contributors, design formats, and prepare procedures and instructions.

Maintenance of the system (coordination of inputs, quality control, improvements, preparation of special report specifications, etc.) would probably require less than $1\frac{1}{2}$ man-months of combined effort per year.

IX. PERSONNEL INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Mr. James Peterson, during the week of September 29, 1969 were:

DIVISION OF SPECIAL EDUCATION

Consultant	Area of Responsibility
Marvin E. Beekman	Administration
Jan M. Baxter	Vocational Rehabilitation Coordination
Mary A. Blair	Deaf and Hard of Hearing Teacher-Counselor
Frederic H. Chappell	County Trainable Mentally Handicapped
Jonas Chenault, Jr.	Type A, B, and C Mentally Handicapped
Bert L. Donaldson	Emotionally Disturbed, State Institution Programs
Thomas F. Howard	E.S.E.A. Title VI
Arselia B. Sehler	Blind and Partially Seeing Crippled Homebound and Hospitalized
Gene D. Thurber	Type A, B, and C Mentally Handicapped

RESEARCH BUREAU

Morely Murphy	Forms Coordinator
Dr. Ki-Suck Chung	Analyst
Dr. Wiley Brownlee	Consultant

ADMINISTRATIVE SERVICES BUREAU

Jack Banning	Director, Data Processing Section

DEPARTMENT OF MENTAL HEALTH

James Forster	Assistant Director, Operations Analysis and Research Division

MICHIGAN SCHOOL FOR THE BLIND

Dr. Robert Thompson

X. CURRENT REPORT FORMATS

This section contains some of the reporting formats currently in use for reporting special education information.

Form SE-4180	Individual Report
Form SE-201 (2 pages)	Administrative Guide for Establishing Special Education Programs and Pupil Personnel Services For Handicapped Children (1969-1970)
Computer Printout Format	Special Education Program Type Within District
Form DS 4350, page 1	Local District Membership And Personnel As Of December 15, 1969

SE - 4180
1/70

Michigan Department of Education
Bureau of Educational Services
SPECIAL EDUCATION DIVISION
Box 420, Lansing, Michigan 48902

SURVEY OF HANDICAPPED PERSONS AGES 0 THROUGH 25

(INDIVIDUAL REPORT)

(CHECK ONE)

[redacted]
B Trainable Mentally Hand.
C Severely Mentally Hand.
D Blind
E Partially Seeing
F Deaf
G Hard of Hearing
H Deaf-Blind
J Physically Hand. (Crippled)
K Otherwise Health Impaired
[redacted]
[✓ M **Emotionally Disturbed**]
N Other Conditions (To Be Specified)

EDUCATIONAL AGENCY	Legal Name	County No. – District No.	Telephone – Area Code Local No.
	Address	City	Zip Code

INSTRUCTIONS: Fill in the child's name and put an X in the boxes appropriate for that child. If legally excluded place DATE in column 11. Send the GREEN copy by APRIL 15, 1970 to the Intermediate School District. Retain the WHITE for your record.

DATA ON YOUTH BY HANDICAP

NAME			DATE OF BIRTH	SEX	GRADE LEVEL	SCHOOL PROGRAMS		NON-SCHOOL PROGRAMS				OUT OF SCHOOL			VOCATIONAL EDUCATION				AWAITING DIAGNOSIS	DIAGNOSED AWAITING PLACEMENT	REGULAR CLASS PLACEMENT		SPECIAL CLASS PLACEMENT	RECEIVING SUPPORTIVE SERVICES FROM PUBLIC SCHOOL OR AGENCY							
						Attending Public Schools	Attending Non-Public Schools	Parent Operated Centers	Mental Health Operated Programs		Sheltered Workshops	Legally Excluded Date	Listed As Dropouts	High School Graduate	Special Ed. Operated		Vocational Ed. Operated				Full Time	Part Time		School Social Worker	Speech Correction	Voc Rehab.	Occup Therapy	Physical Therapy	Homebound & Hospt.	Psych Services	Teacher Counselor or Consultant
Last	First	Initial							Day Training	Residential					Class	Work Exp.	Class	Work Exp.													
(1)			(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)

(REPRODUCED FROM STATE FORM)

CERTIFICATION: I certify that the information submitted is true and correct to the best of my knowledge.

Local Authorized Official ______________________ Date ______________

Form SE-201

	PROGRAMS FOR THE PHYSICALLY HANDICAPPED	Department of Education approval required. Application may be requested from Dept. of Education	Special teacher certification and approval required	Program must be approved and pupils certified by Dec. 15th of each year.	Program may be jointly operated by a combination of school districts	Any pupil provided both regular and special class instruction is counted for special education.	Intermediate school districts may operate this program and be granted state aid allowances	Rules and regulations for counting memberships for full-time pupils shall apply	Maximum Teacher Load	Minimum Teacher Load	State Aid is 75% of Salaries up to	Cost in excess of State Aid may be charged to sending district.	Educational Planning Committee required	Certification of Pupils	Summer Programs are reimbursable up to 75% of actual cost.	Board and Room costs are reimbursable to either sending or receiving districts for pupils attending approved program.	75% of Actual Transportation costs reimbursed up to $200.	Approved Directors & Supervisors reimbursable up to $7700	Chronological Age Range in any special class shall not exceed.	Experimental programs shall be submitted for initial approval to the Superintendent of Public Instruction and submitted for approval each year prior to being continued.
SPECIAL CLASSES	TYPE I - Program for Deaf or Combined Prog. for Deaf and Hard of Hearing	X	X	X	X	X		X	7 Pupils	NONE	4 memberships	X	X	Members of American Board of Otolaryngology or their equivalent	X	X	X	X	6 years	X
	TYPE I - Program for Hard of Hearing	X	X	X	X	X		X	10 Pupils	NONE	4 memberships	X	X	Members of American Board of Otolaryngology or their equivalent	X	X	X	X	6 years	X
	TYPE I - Program for Blind or Combined for Blind and Partially Seeing	X	X	X	X	X		X	8 Pupils	NONE	4 memberships	X	X	Members of American Board of Ophthalmology or their equivalent	X	X	X	X	6 years	X
	TYPE I - Program for Partially Seeing	X	X	X	X	X		X	10 Pupils	NONE	4 memberships	X	X	Members of American Board of Ophthalmology or their equivalent	X	X	X	X	6 years	X
	TYPE I - Program for Crippled and Otherwise Physically Handicapped	X	X	X	X	X		X	15 Pupils	NONE	4 memberships	X	X	Am. Bd. of Orthopedic Surgeons or their equivalent for crippled or	X	X	X	X	6 years	X
	TYPE I - Program for Otherwise Physically Handicapped	X	X	X	X	X		X	15 Pupils	NONE	4 memberships	X	X	Am. Bd. of Internist Pediatrician, Neurologist or their equivalent	X	X	X	X	6 years	X
ITINERANT PROGRAMS	TYPE II - Program for the Homebound	X	X	X	X		X	X	12 Pupils		$7,700 per tch'r per year	X		Licensed Physician	X			X		X
	TYPE II - Program for the Hospitalized	X	X	X	X		X	X	12 Pupils		$7,700 per tch'r per year	X		Licensed Physician	X			X		X
	TYPE II - Program Combined Homebound and Hospitalized	X	X	X	X		X	X	12 Pupils		$7,700 per tch'r per year	X		Licensed Physician	X			X		X
	TYPE III - Program for Speech Correction	X	X	X	X		X	X	100 Pupils	75 Pupils	$7,700 per tch'r per year	X		Speech Correctionist vs. Master's plus 5 years of speech corr experience	X			X		X
	TYPE IV - Program Teacher Counselor for Physically Handicapped	X	X	X	X		X	X	NONE	Based on school enrollment of 2,500	$7,700 per tch'r per year	X	X	Licensed Physician	X		X	X		X
	Physical Therapist	X	*	X	X		X		NONE		$7700 per Therapist			Licensed Physician						
	Occupational Therapist	X	**	X	X		X		NONE		$7700 per Therapist			Licensed Physician						

NOTE: STATE AID MAY BE CLAIMED FOR THE PHYSICALLY HANDICAPPED AND SPEECH DEFECTIVE UP TO 25 YEARS OF A

(REPRODUCED FROM STATE FORM)

*License required from Michigan Board of Physical Therapy Registration

**Registered with American Association of Occupational Therapy as having passed the Association's examination or holder of a temporary permit showing eligibility for taking the exam during the current school year.

Form SE-201 (continued)

PROGRAMS FOR THE MENTALLY HANDICAPPED	Department of Education approval required. Application forms are available upon request from Dept of Education	Special teacher certification and or approval required	Program must be approved and/or pupils certified before December 15 of each year	Program may be jointly operated by a combination of school districts	Any pupil provided classroom instruction in both the regular program and an approved special class for handicapped may be counted as full-time member in special program	Intermediate school districts may operate this program and be granted state aid allowances	Rules and Regulations for counting membership for full-time pupils shall apply	Maximum teacher load which is reimbursable	Minimum school membership which is reimbursable	State Aid is 75% of Salaries up to	Costs in excess of state aid may be charged to sending districts	Educational Planning Committee Required	Certification of Pupils	Summer Programs Reimbursed up to 75% of Actual Cost	Board and Room costs are reimbursable to either sending or receiving districts for pupils attending approved program	75% of actual transportation costs reimbursed up to $200	Approved Directors & Supervisors reimbursable up to $7,700	Must have Social Worker and Psychiatric or Psychological consultant service available plus continuous psychological services	Teacher load recommended (This will vary depending on age range of pupils and extent of disabilities.)
Type A	X	X	X	X	X		X	15 pupils		2 state aid memberships per pupil	X	Recommended	School Diagnostician for mentally handicapped	X	X	X	X		10-15
Type B	X	X	X	X	X		X	15 pupils		2 state aid memberships per pupil	X	Recommended	School Diagnostician for mentally handicapped	X	X		X		8-10
Type B County Trainable	X	X	X		X	X		15 pupils		X	X	Recommended	School Diagnostician for mentally handicapped	X		See Policy of State Bd of Education			8-10
Type C	X	X	X	X		X			2,500 pupils in school enrollment in district or combination of district	$7,700 per teacher	X	Recommended		X	X		X		
PROGRAMS FOR THE EMOTIONALLY DISTURBED																			
Special Classroom	X	X	X	X	X			10 pupils		$7,700 per teacher	X	X	Approved psychologist and a qualified psychiatrist	X	X	X	X	X	
Consultant Program	X	X	X	X		X				$7,700 per consultant	X	X	Approved psychologist and a qualified psychiatrist	X	X	X	X	X	
PUPIL PERSONNEL SERVICES																			
School Diagnostician for mentally handicapped	X	Approval	Program	X		X			5,000 pupils in school enrollment in district or combination of district	$7,700 per diagnostician				X			X		
School Social Worker (Visiting Teacher)	X	X	Program	X		X			2,500 pupils in school enrollment in district or combination of district.	$7,700 per school social worker				X					

NOTE - STATE AID MAY BE CLAIMED FOR MENTALLY HANDICAPPED CHILDREN UP TO 21 YEARS OF AGE

(REPRODUCED FROM STATE FORM)

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MICHIGAN DEPT. OF EDUCATION - SPECIAL EDUCATION PROGRAM TYPE WITHIN DISTRICT                K0301  1

   DISTRICT IDENTIFICATION                                      CERT    YEAR    COLL   APPROVAL      REASON
   CO DIST          NAME                             SEX        TYPE    EXPIRE  CODE     TYPF    1 2 3 4 5

01-010      ONE A DAY SCHOOL DISTRICT

            S. S. #      PROG  COMPLETE NAME (INCLUDING MAIDEN)

            123-45-6789  SA    SMITH ALFRED JOHN               1          1      69      01
            543-21-0987  SA    SMITH NANCY ANN KETTERING       2          4      70      21
```

SPECIAL EDUCATION

SA–Mentally Handicapped
SB–Speech Correction
SC–Orthopedically Handicapped
SD–School Social Worker
SE–Emotionally Disturbed
SF–Diagnostician
SG–Psychologist
SH–Homebound and/or Hospitalized
SI–Teacher Counselor
SJ–Socially Maladjusted
SK–Education of the Blind
SL–Education of the Deaf
SM–Perceptually Handicapped
ST–County Trainable Teacher
SU–Ment. Hand., Consultant

SAMPLE

INFO MUST BE TYPED ON BLANK PRINT OUT FOLLOWING THIS EXACT FORMAT. ALSO SEE INSTRUCTIONS WITH PROGRAM.

(REPRODUCED FROM STATE FORM)

Blue

DS-4350
11/69c

Michigan Department of Education
DEPARTMENT SERVICES DIVISION
Box 420 Lansing, Michigan 48902

SED USE ONLY

ACTION	DATE
Received	
Approved	
Disapproved	

LOCAL DISTRICT MEMBERSHIP AND PERSONNEL AS OF DECEMBER 15, 1969

SCHOOL DISTRICT	Legal Name	County No. — District No.	Telephone – Area Code — Local No.
	Address	City	Zip Code

INSTRUCTIONS: Complete each item in detail. Return BLUE, PINK & GREEN copies by December 30, 1969 to intermediate district. The intermediate district sends the BLUE and PINK copies on or before January 5, 1970 to the State address indicated above. Retain the WHITE copy for your record.

I PERSONNEL, PUPILS and ESTIMATED COSTS

LINE	PROGRAMS (1)	NUMBER APPROVED PERSONNEL DEC. 15 (2)	NUMBER OF PUPILS		SALARIES			
			DEC. 15 (3a)	SEPT. 26 (3b)	TEACHERS (4)	OTHER (5)	PRORATED SALARIES (Computed on APPLICATION FORM SE-4293) (6)	TOTAL (7)
	MENTALLY HANDICAPPED:							
1.	Type "A" Teachers 31.0							.
2.	Type "B" Teachers 32.0							.
3.	Ment. Hand., Consultant 33.0							.
	PHYSICALLY HANDICAPPED:							
4.	Type 1 Deaf Only 34.1							.
5.	Hard of Hearing Only 34.2							.
6.	Deaf and H.H. 34.3							.
7.	Blind Only 34.4							.
8.	P.S. Only 34.5							.
9.	Blind and P.S. 34.6							.
10.	Crippled or P.H. 34.7							.
11.	Type 1 TOTAL 34.0							.
12.	Type 2 Homebo'nd and Hosp'lzd 35.0							.
13.	Type 3 Speech Correctionists 36.0							.
	Type 4 Teacher Counselors:							
14.	A. Blind & P.S.							.
15.	B. Deaf & H.H.							.
16.	C. Crippled or P.H.							.
17.	Type 4 TOTAL 37.0							.
	EMOTIONALLY DISTURBED:							
18.	Teacher Consultants							.
19.	Classroom Teachers							.
20.	Emotionally Disturbed TOTAL 39.0							.
	OTHER PERSONNEL:							
21.	Social Workers 40.0							.
22.	School Diagnosticians 41.0							.
23.	Director–Full Time 42.0							.
24.	Supervisor–Full Time 43.0							.
25.	Occupational Therapist 46.0							.
26.	Physical Therapist 47.0							.
27.	Other Prof-Personnel 48.0							.
28.	Teacher Trainers For Visually Handicapped 38.0							.
29.	TOTAL							.

(REPRODUCED FROM STATE FORM)

II. CERTIFICATION

I certify that the information submitted is true and correct to the best of my knowledge.

Report Prepared by ____________________(Signature) Date ____________ Superintendent D22-22 ____________ (Signature)

TABLE 1

SUMMARY OF DATA DEVELOPMENT STATUS

MICHIGAN

DATA ELEMENTS			PUBLIC SCHOOLS			STATE-OPERATED SCHOOLS			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	**ENROLLED**	**AGE**	Available by age groups	Modify special survey forms SE-220-A and B and use annually	Local school district	Available at individual school or institution	Use Form SE-220-B for interagency transmission	Individual school or institution through state agency	Available at individual school. Voluntary use of Form SE-220-B
		HANDICAPPING CONDITION	Available						
		EDUCATION PROGRAM	Not available						
	ON WAITING LIST	**AGE**	Not available at state level						
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	**NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION**	**AGE**							
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	**AGE**	Not available			Not available			
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	**AGE**	Not available			Not known to be available			Voluntary use of Form SE-220-B
		HANDICAPPING CONDITION							
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Not known to be available	Use existing statistics as basis for projection	Research Bureau				
DATA USED TO SIMULATE SPECIAL EDUCATION	**EDUCATION PROGRAM MIX TRENDS**		Not available	Use staff experience until data base established	Division of Special Education				
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	**TARGET GROUP**	Available by handicap condition	—	—	Available at individual school or institution	—	Individual school or institution through state agency	Voluntary information from individual school
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available	—	—		—		

MINNESOTA STATE ANALYSIS REPORT

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X. CURRENT REPORT FORMATS D23-12

The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

MINNESOTA STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of this Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow procedures to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Minnesota and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

The Minnesota Division of Special Education receives a good deal of statistical information on the state public school education programs for handicapped children. There would be little need for redesigning the existing reporting forms of the Division in order to secure the data for the projection model. Unfortunately, the Division has not had wide experience in utilizing electronic data processing equipment in analyzing the information it receives from school district superintendents.

The most serious difficulty in having the state of Minnesota use the model effectively appears to be the lack of communication between the Division of Special Education and the Data Processing Liaison Office within the Department of Education. However, the enthusiasm toward the current study by the Division of Special Education and the EDP Liaison Office may enable these offices to better coordinate their activities in the future.

While the Division of Special Education of the State Department of Education has the responsibility for all handicapped groups in the public schools, the Department of Public Welfare has the responsibility for mental retardation and emotionally disturbed children in residential special classes, (i.e., classes in institutions for mental health, deaf, blind) and day service centers. With the exception of day service centers for the mentally retarded, little data is presently collected in the Department of Public Welfare concerning individual pupil and teachers involved in Special Education programs. The Department of Public Welfare seemed eager to be of assistance to the Division of Special Education, in supplying data for the model, and willing to adopt appropriate reporting procedures.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The responsibility for the education of handicapped children in Minnesota is illustrated in the organization chart shown in Figure 1. Only those organizations having education or informational service functions for handicapped children have been shown. The Minnesota Division of Special Education has the legal responsibility for the following handicapped groups:

a. Visually impaired

b. Hearing impaired

c. Mentally retarded

   - Educable
   - Trainable

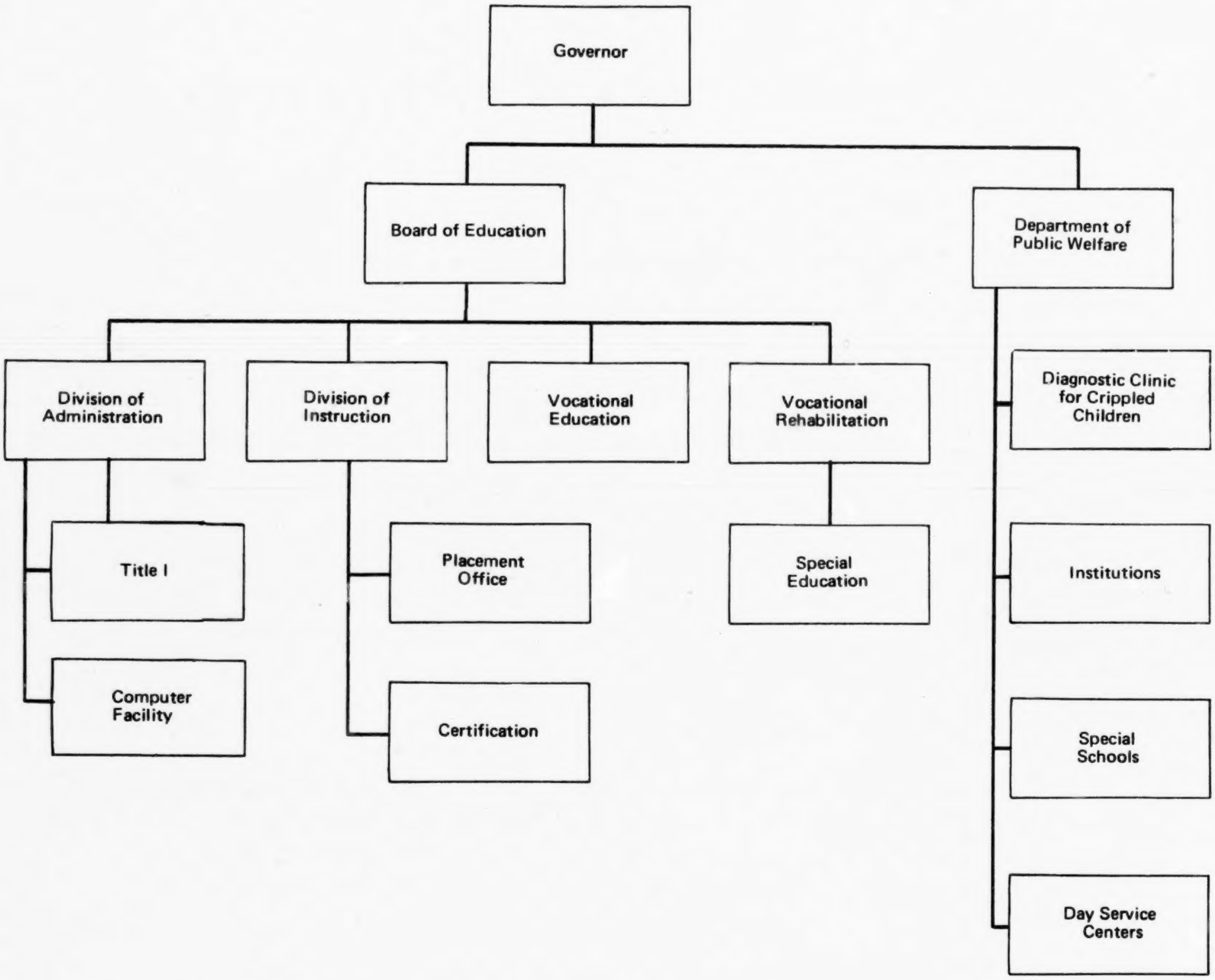

Governor
Board of Education
Department of Public Welfare
Division of Administration
Division of Instruction
Vocational Education
Vocational Rehabilitation
Title I
Computer Facility
Placement Office
Certification
Special Education
Diagnostic Clinic for Crippled Children
Institutions
Special Schools
Day Service Centers

FIGURE 1. ORGANIZATION OF SPECIAL EDUCATION IN MINNESOTA

d. Speech handicap

e. Special learning disabilities

f. Multiple handicap.

The handicapped groups for which the Department of Public Welfare has legal responsibility are:

a. Mental retardation

- Educable (institutional)
- Trainable (institutional)
- Severe
- Profound

b. Emotionally disturbed (institutional).

In accord with this responsibility, the Department of Public Welfare has jurisdiction over residential special classes for the mentally retarded and emotionally disturbed and day care centers for the mentally retarded.

It should be noted that the Title I, ESEA Office of the Department of Education controls the federal funds for administering educational programs in the State Institutions and in certain private institutions for handicapped children.1/

IV. DATA ELEMENT EVALUATION

Some specific data elements are necessary to the use of the projection model. The information which these data elements provide may also be very useful to the Division of Special Education for other operational analyses. These data elements and their potential sources are discussed in the following paragraphs.

Number of Children Identified as Needing Special Education

Enrolled. Every year the superintendent of each school district in Minnesota must file applications with the Division of Special Education for state approval of programs for handicapped children in his district. The number of handicapped children, by single year of age, within each handicapped group, who are enrolled in each special education program, can be obtained from the annual report submitted by the local school superintendents, except in the case of annual reports of speech handicap.

1/ If the Title I ESEA Office desires to be included in the manpower requirements modeling effort, its reporting needs and information systems would have to be considered in the proposed systems design.

The data for residential special classes and day service centers is not complete. The existing reporting forms of the day service centers are capable of providing all the required information, but the reporting forms for the mental health, deaf, and blind institutions must be modified to include the number of special education enrollees within the institutional child population.

Waiting List. The Director of Special Education of Minnesota is not certain that this data element exists at the school district level, except for Minneapolis-St. Paul. Unless a school district feels that it can afford to place more children in special education classes, for example, it may not even bother with additional referrals for diagnosis. In any case, a new form would have to be sent to the superintendents of school districts before this question could be answered.

The waiting lists for the institutions and day care centers are not currently available at the state level. It would appear, however, that this information would be available to the Department of Public Welfare and to the Title I ESEA Office upon request. A new form would have to be developed and sent to the institutions and day care centers.

Number of Children Moving Into And Out Of The Handicapped Child Population

In order to obtain the number of children who have been newly diagnosed as needing special education, new reporting directives would have to be developed and issued by the Division of Special Education and the Department of Public Welfare. (See Section VII, "Recommendations".)

In addition to children newly diagnosed as handicapped each year by diagnostic clinics or schools, it is possible that school programs will acquire children who have been diagnosed or identified as handicapped previously in other school districts or other parts of the state. Rather than reporting these children again as newly diagnosed (which could distort the incidence picture in the state), these intra-state transfers should be reported separately. Because no mechanism exists to monitor these transfers into special education programs, one would have to be developed by the Special Education Division.

State residential schools and day care centers could also be asked to indicate intrastate transfers into their programs, as part of the enrollment data that the Department of Public Welfare would be requesting each year for inclusion in the model.

In future years, establishing accurate attrition rates of special education enrollees, by handicapping condition and single year of age, will be less of a problem than it is today in Minnesota. At the present time, only changes in public school mental retardation enrollment are required to be reported to the Division of Special Education. The same form could be used, with only slight modification, to capture this same information for those enrollees with other handicapping conditions in public schools. The annual reporting forms used by mental health institutions and day service centers could also be modified to include individual pupil entrance and attrition from institutional special education programs.

A new collection document would be required to obtain this data element from institutions and day care centers.

Unidentified Child Population

An estimate of the number of children, by handicapping condition and education level, who will be newly diagnosed in the near future cannot be based on current referral lists, since such lists are not available. It may be possible to overcome this difficult problem on a temporary basis, however, by utilizing several limited studies on the unserved handicapped child population that have been conducted for selected rural areas in Minnesota. State-wide extrapolations may be possible to make on this basis, especially since the Minneapolis-St. Paul school districts have reliable unidentified child population figures for their urban areas. The Division of Special Education expressed willingness to examine these studies in an effort to fill this data requirement.

Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

Number of Children in the State Population

The projected number of children in the general population, by single year of age, for each year for which special education manpower projections are to be made, presents little problem in data collection because Title VI project applications require this information, at least for the coming fiscal years. These projections could be used as the basis for the model's projection, with an additional requirement that they be broken out by education level.

Projections are also available for future years, and applying established incidence rates to the number of new entrants should present no difficulty.

Data Used to Simulated Special Education

Trends in the number or proportion of children served in each educational program, by target group, are available for public school special education programs, day care center programs, and special education programs in institutions.

The personnel/pupil contact ratios for the types of personnel in direct contact with the children in each target group in special education programs form another data item that would be readily available from the Division of Special Education and can be applied to all types of programs in public schools, institutions, and day care centers.

Number of Special Education Personnel Employed

The number of special education personnel employed in Minnesota public schools and day care centers is available from the Division of Special Education and from the Department of Public Welfare respectively. Detailed data on these professionals were obtained during the visit.

Data on the type and number of special education personnel employed in institutions was not available at the time of the visit, but this information could be supplied in the future through the Personnel Division of the Department of Welfare. During the scheduled visit, that office was able to supply a rough estimate of the total number of all types of special education personnel.

V. PROCESSING POTENTIAL

Hardware

There is adequate hardware available to the Division of Special Education to process the data and accommodate the projection model. The same cannot be said for the Department of Public Welfare. The latter was quite willing, however, to send the appropriate hard-copy data to Special Education in order to have the model run in future years.

Through the EDP Liaison Office of the State Department of Education, the Division of Special Education has an IBM 360/40 and 360/50 at its disposal for producing its Annual Report on pupils and personnel. The Director of the EDP Liaison Office strongly suggested that the proposed projection effort could be accommodated if the Division of Special Education indicated its desire to have such information.

Personnel

The programming staff of the EDP Liaison Office appears capable of developing, operating, and interpreting the results to the Division of Special Education, although the last function may not be necessary. If the Division of Special Education obtains the services of a qualified statistical consultant to develop and maintain the model. (See Section VIII, "Resource Requirements.")

VI. ADDITIONAL FACTORS

Acceptance of Model Concept

The Division of Special Education and the Department of Public Welfare expressed a high level of willingness to undertake the work necessary to implement the Manpower Requirements Projection Model. The Director of Special Education even committed one analyst from his staff to have full time responsibility for developing the system in Minnesota. The EDP Liaison Office serving the Division of Special Education was also quite willing to undertake the required effort. In fact, the Director of the EDP section designated a member of his staff to have the responsibility for developing this system.

Problem Areas

While the Director of Special Education is eager to implement the model, he does not feel that this could be accomplished with existing resources. Title VI funds, for example, are insufficient to implement the proposed system, according to the Director.

The most serious difficulty in having the state of Minnesota use the model effectively appears to be the poor coordination between the Division of Special Education and its Data Processing Section. Both groups did express a good amount of enthusiasm for the present study, however, and this may be sufficient to enable Minnesota to implement the model without unnecessary delay.

VII. RECOMMENDATIONS

As a result of the interviews with those individuals responsible for special education programs in Minnesota, several actions necessary for implementing the Manpower Requirements Projection Model can be recommended. First, the state agencies accountable for special education program data collection must close the data gaps between current data availability and the amount of data required by the model. In order to close the data gap, these agencies must develop the procedures and form to capture information on those children that have been newly diagnosed as needing special education but are not currently being served by a special education program. All school district superintendents should be required to complete this form and supply the data by the fall of each year. Because of the high level of effort imposed on the superintendents by this task, considerable emphasis must be placed on the importance of collecting this data by the Division of Special Education.

The local district in Minnesota is recommended as the source of this data because it is there that a child is processed and deemed eligible for special education. Cooperative directives could be issued between the Division of Special

Education and each of the agencies involved in diagnosing the children to affect the reporting of these newly diagnosed children to the applicable local district by child name, age, address, parent name, and handicapping condition of those children who are newly certified as needing special education.

If this query method is chosen, a simple matrix form, one by handicap and age, could be used by the local district in a hash-mark fashion to record the newly diagnosed children as they are reported to the district. (See Figure 2 for an example of such a form.) This form could then be forwarded to the state Special Education Division at the end of the calendar year. Such data need not be reported to the state by child name unless the enrollment and waiting list data are also reported by child name.

It is also recommended that the Division of Special Education obtain individual pupil information for those children needing speech therapy by modifying form F65-10 ("Application for Approval Speech Correction Program") to include a detailed list of pupils similar to that found on "Applications for Approval" of all other handicap groups.

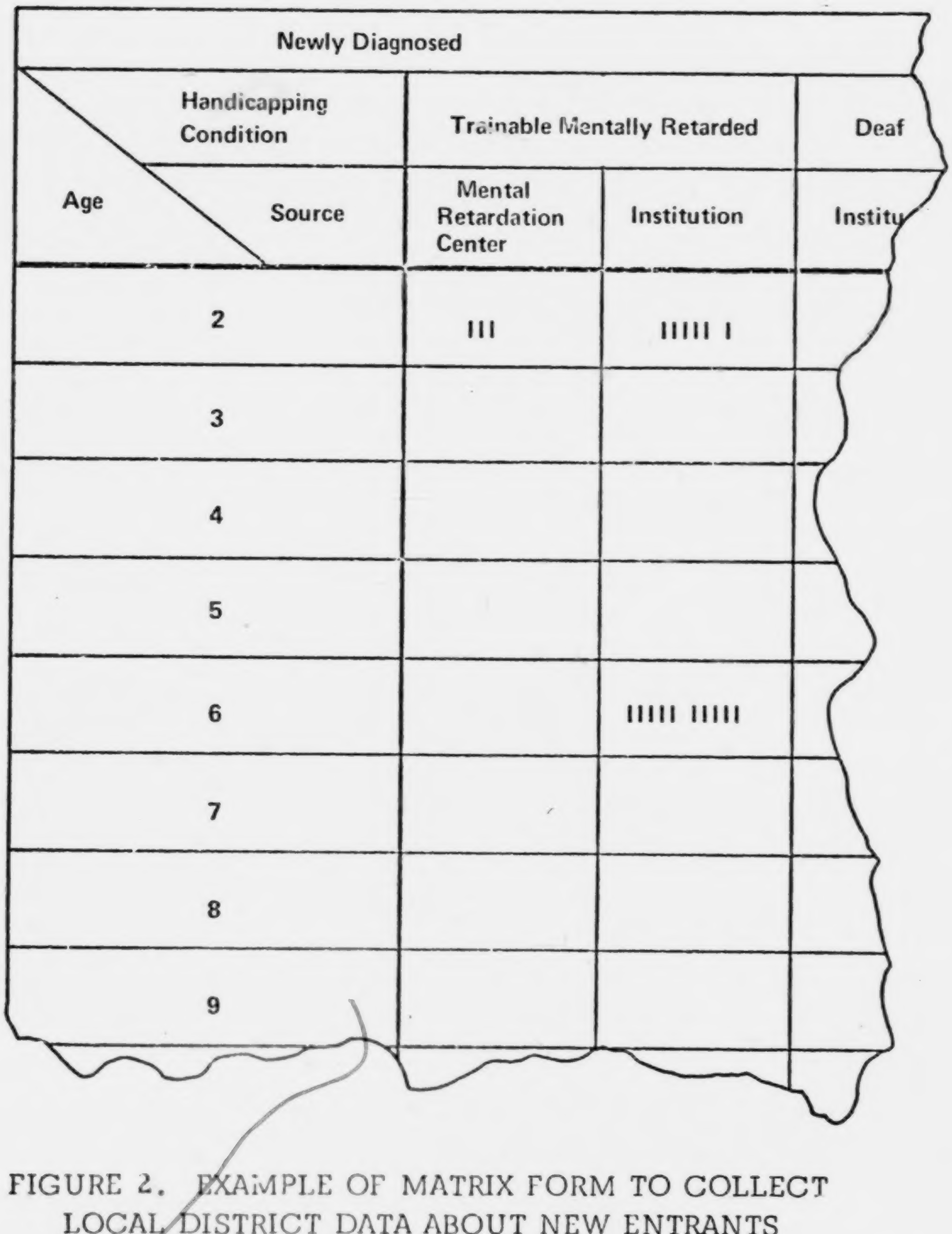
The Division of Special Education should also modify form F 65-20a ("Notice of Change in Enrollment in Classes for Mentally Retarded Children") in order to obtain individual pupil changes in public school special education enrollment for all handicapping conditions. This form might also be the mechanism for capturing intrastate transfer data from public school special education programs.

The Division of Special Education may feel, however, that a new form should be designed for this purpose.

In order to close the data gap of the institutional and day center services for the mentally and emotionally handicapped, the Department of Public Welfare should modify its annual reporting form, DPW-MED-1001B, for the residential special classes to include the number of special education enrollees within the mental health child population.

The Department of Public Welfare should also modify form DPW 593 ("Application for Daytime Activity Center Program for Mentally Retarded") and DPW-MED-1001B to record individual patient entrance and exit information from mental health institutional special education programs. Entrance data should include information on whether the child transferred from another special education program within the state.

The second general procedure necessary for implementing the projection model concerns the actual processing of the data. Because of the availability of adequate hardware to the Division of Special Education and the willingness of the Department of Education to process this data, it is recommended that the



Newly Diagnosed			
Handicapping Condition Age Source	Trainable Mentally Retarded		Deaf
	Mental Retardation Center	Institution	Institu
2	III	IIIII I	
3			
4			
5			
6		IIIII IIIII	
7			
8			
9			

FIGURE 2. EXAMPLE OF MATRIX FORM TO COLLECT LOCAL DISTRICT DATA ABOUT NEW ENTRANTS TO HANDICAPPED CHILD POPULATION AND EXAMPLE OF HASH-MARK ENTRIES

Department of Public Welfare and the Title I ESEA office supply their hard copy information to the EDP Liaison Office within the Department of Education for keypunching. The financing of this operation need not be absorbed by the Division of Special Education, however, since data processing charges are prorated to the agency being served.

VIII. RESOURCE REQUIREMENTS—MANPOWER

The Division of Special Education has indicated it would commit a member of the staff to be responsible for overall coordination of the proposed model, subject to receiving additional funds for computer time and the other associated cost of model implementation. It seems probable, however, that a statistical consultant would have to be used in developing and maintaining the Manpower Requirements Projection Model. According to the Director of the Division of Special Education, a consultant would be necessary because

> "...there is no manpower reserve in the Special Education Section to complete this assignment without seriously jeopardizing other existing committments, for example, 'staff analyst', nor are we able to obtain authorization for such a position. Our only alternative would be to reassign part-time of an existing administrative position to this task. Although we might be prepared to do this at some point, it would only be done by further over extending our resources and create problems in other areas that are sometimes unpleasant to live with."

It is estimated that approximately 2½ man-months of systems analysis, one of computer programming, and two of special education staff effort would be needed over a two year period to: (1) modify those forms discussed in "Recommendations," (2) develop a form to capture waiting list information, new diagnosed information, and intrastate transfer data, and (3) coordinate the data collecting activities with other state and local agencies.

In order to maintain the proposed system, 5 man-weeks of combined effort annually is recommended.

X. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Mr. Jeffrey Koshel, during the week of November 18, 1969 were:

Mr. John Groos	Director, Special Education Section
Mr. Wayne Ericksen	Assistant Director of Special Education
Mr. Droubie	Director of Teacher Certification
Mr. E. Berhow	Director of Teacher Placement
Mr. Gardner	Department of Welfare, Personnel Officer
Mr. Jim Geary	Title VI Director, Former Director of Special Education
Miss Karen Swenson	Program Assistant for Title VI, Department of Education
Mr. Allan Mathison	Director of Day Care, Department of Public Welfare
Mr. Ralph Ford Mr. Wrobel	Division of Vocational Rehabilitation, Department of Public Welfare
Mr. Harlen Sheely	Director, EDP Liaison Office, Department of Education

XI. CURRENT REPORT FORMATS

Form F65-(10-78), Application for Approval Services for (Handicap) Children

Form F65-10, Application for Approval Speech Correction Program

Form DPW 593, Application for Daytime Activity Center Program for Mentally Retarded (Part III)

Form DPW-MED-1001B, Institutional Data

Form F65-209, Notice of Change in Enrollment in Classes for Mentally Retarded Children

State of Minnesota
Department of Education
Special Education Section

F65-20
(9/1/68 Revised

APPLICATION FOR APPROVAL
SERVICES FOR EDUCABLE RETARDED CHILDREN

INSTRUCTION: Complete this form and return in triplicate by October 1 for each teacher you employ to teach educable retarded children. Please print or type.

1. County ________ 2. City or Town ________ 3. District Number ________

4. Date ________ 5. Signature and title of person completing form ________

6. Type of EMR Service
____a. Full-time
____b. Group Supplemental
____c. Individual Supplemental (Please attach psychological and teacher evaluation and rationale for placement in this service.)

7. Federal Support
____a. Title I
____b. Title III
____c. Title VI
____d. None
____c. Other

8. Name of Teacher ________
Last First Middle Maiden

9. Teacher Identification (one is required)
a. File Folder Number ________
b. Certificate Number ________

10. Employment Status
a. Contract $________per________
b. Non-Contract $________per hour.

11. Level of Class
____a. Preschool (age 4-5)
____b. Primary (age 6-9)
____c. Intermediate (age 10-12)
____d. Junior High (age 13-15)
____e. Senior High (age 16-21)

12. Place of Instruction ________
This is a(n):
____a. Elementary School Building
____b. Junior High School Building
____c. Senior High School Building
____d. Other ________ (Please specify)

13. Number of hours per day class is in session________

14. Beginning Date ________

15. Number of Students ________

16. Has approval been requested and given for trial placement? ________

Signature of Superintendent or Designated Person ________

(REPRODUCED FROM STATE FORM)

State of Minnesota
Department of Education
Special Education

F 65-10
(9-1-68)

APPLICATION FOR APPROVAL
SPEECH CORRECTION PROGRAM

INSTRUCTIONS: Complete and return this form in triplicate by October 1, for each correctionist or teacher you employ to provide services to children with speech disorders. Please ~~print or~~ type. only *List ~~student~~'s name of child ~~is~~ receiving individual supplemental instruction only.* (1 per Application) - pupil 1 pupil

1. County ______ 2. City of Town ______ 3. Number of District ______

4. Date ______ 5. Signature and Title of person completing form ______

6. Type of Program
____a. Full-Time
____b. Part-Time
____c. Group Supplemental
____d. Individual Supplemental
* ______

7. Federal Support
____a. Title I
____b. Title III
____c. Title VI
____d. Other
____e. None

8. Name of Correctionist ______
Last First Middle Maiden

9. Correctionist Identification (one is required)
a. File Folder Number ______
b. Certificate Number ______

10. Employment Status and Salary
a. Contract $______ per ______
b. Non-Contract $______ per hour

11. Date Program Begins ______

12. Block Plan
____a. Yes (if yes, describe on reverse side)
____b. No

13. Total Caseload ______

14. Describe weekly program below. List the names and districts of residence for students requiring special transportation on the reverse side of this form.

Site of Therapy		Days Scheduled (Circle)	Caseload		Average Length of Session	Sessions/Week Per Pupil
District	Building		Elem.	Second.		
		M T W TH F				
		M T W TH F				
		M T W TH F				
		M T W TH F				

(REPRODUCED FROM STATE FORM)

DAYTIME ACTIVITY CENTER PROGRAM FOR MENTALLY RETARDED
STATE OF MINNESOTA
DEPARTMENT OF PUBLIC WELFARE
CENTENNIAL OFFICE BUILDING
ST. PAUL, MINNESOTA 55101

Application is hereby made in behalf of:

____
Name of daytime activity center

____
Address of daytime activity center

for a grant in the amount of $__________, for the period of July 1,__________ to June 30,_______, inclusive, for the purpose of providing a daytime activity center for the mentally retarded. If a grant is made, the warrent should be drawn in the name of______________________________and sent to

_________________________, _________________________
Name Address

AGREEMENT

It is understood and agreed by the applicant that any funds granted pursuant to this application are to be expended for the purposes set forth herein as approved by the Commissioner of Public Welfare and in accordance with the rules and regulations of the Department of Public Welfare. Further it is understood that the budgets, expenditures and program will be subject to periodic review by the Commissioner, and if funds are not needed to implement the original approved plan, they may be withdrawn after 30 days' notice and reallocated to other programs, or if funds are not being administered in accordance with the approved plan and budget, they may be withdrawn upon 90 days' notice.

____ ______________
Authorized Board Signature & Title

____
Date

(REPRODUCED FROM STATE FORM)

Institutional Data, Dept of Public Welfare,
St. Paul Minn. 55101

Assigned to:

NAME (Last, middle, first)	DPW-ME-NO.	DATE ADDED TO DPW SUPERVISION
ADDRESS Street No. City County		CO. OF LEGAL SETTLEMENT

SEX	RACE	MARITAL STATUS	BIRTHDATE	BIRTHPLACE	RELIGION	CITIZENSHIP	VETERAN'S STATUS	LIVING ARRANGEMENT

DATE COMMITTED	CO. OF COMMITMENT	TYPE OF COMMIT	RECOMMENDATION AT COMMITMENT	SUPERVISING AGENCY
PREVIOUS HOSPITALIZATION FOR MENTAL DISORDER				SOCIAL SECURITY NUMBER

FAMILY (Include children and sibling - Give mother's maiden name)	ADDRESS	DATE OF BIRTH
FATHER		
MOTHER		
SPOUSE		
GUARDIAN		

(REPRODUCED FROM STATE FORM)

CLINICAL CLASSIFICATION (Add Secondary Cranial Anomaly if Present)
Date: A.A.M.D. Code Description: Motor Dysfunction:

DATE	I. Q.	TEST USED	TESTED BY

INTELLIGENCE LEVEL		ADAPTIVE BEHAVIOR	
No retardation		No neg. dev. from norm	
Borderline		Mild neg. dev. from norm	
Mild		Moderate neg. deviation	
Moderate		Severe neg. deviation	
Severe		Undetermined	
Profound			
Undetermined			

BARTMAN CLASSIFICATION	Intellectual	Emotional	Physical

FUNCTIONAL IMPAIRMENT		IMPAIRMENT OF SPECIAL SENSES		CONVULSIVE DISORDER		PSYCHIATRIC IMPAIRMENT	
				None		None	
None		None		Grand mal		Behavioral reaction	
Partial		Blind or severe visual		Petit mal		Neurotic reaction	
Wheelchair		Deaf or severe hearing		Psychomotor		Psychotic reaction	
Bedridden		Other (specify)		Other (specify)		Personality disorder	
Not determined						Other	

TYPE OF CARE NEEDED (PROGRAM)		SOMATIC DISORDER	
I Child Activation		Endocrine	
II Child Development		Cardiac	
III Teenage		Dermatologic	
IV Adult Activation		Gastrointestinal	
V Adult Motivation		Renal	
VI Adult Social Achievement		Other	

DIAGNOSIS OF MENTAL DISORDER (APA)
Code: Description

DIAGNOSIS OF SOMATIC DISORDER

DATE	STATUS	DATE	STATUS	DATE	STATUS

DATE REMOVED FROM SUPERVISION	REASON

D23-16

DPW MR SUPERVISION RECORD DPW-MED-1001B

Attrition Information for M.R.

State of Minnesota
Department of Education
Special Education Section

Please Submit This Form in Duplicate
NOTICE OF CHANGE IN ENROLLMENT
IN CLASSES FOR MENTALLY RETARDED CHILDREN

F65-20a
(8-67)

Name and Title of Person Completing Form ______ Date ______ Name of City and Number of District ______

A. NEW ENROLLMENTS

Name of Pupil[1]	Age[2]	I.Q.	Date Tested	Psychologist	Test Used	Physical Disability[3]	Hours[4]	Building/Teacher

B. TERMINATIONS

Name of Pupil	From (Building/Teacher)	Plans for Pupil[5]

C. TRANSFERS (to another special class within the district)

Name of Pupil	From (Building/Teacher	To (Building/Teacher)

(REPRODUCED FROM STATE FORM)

---

[1] If pupil is a nonresident, please indicate the city and number of his home district.
[2] List nearest chronological age as of September of the current school year.
[3] List type of physical disability (if any), such as cerebral palsy, visual or hearing impairment, etc.
[4] List number of hours per day the pupil spends in the special class.
[5] Please indicate what plans have been made for the pupil(s). Example: transfer to regular class, etc. (Please be specific.)

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
MINNESOTA

DATA ELEMENTS			Public Schools			Institutions			Day Care Centers			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	**ENROLLED**	**AGE**	Available for all handicapped groups except speech	New form required for speech enrollment	Superintendent of local school district	Not available from existing reporting formats	Modification of existing form	Superintendent of institutions	Available	Not applicable	Director of Day Care Centers	Not currently available
		HANDICAPPING CONDITION	Available on current enrollment forms	Not applicable					Available			
		EDUCATION PROGRAM							Available			
	ON WAITING LIST	**AGE**	Available for handicapped children in Minneapolis-St. Paul	New form sent to all local school districts	Superintendent of local school district	Not currently available at state level	New form sent to institutions	Superintendent of institutions	Not available	New form required	Director of Day Care Centers	Not available
		HANDICAPPING CONDITION										
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	**NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION**	**AGE**	Only for Minneapolis-St. Paul	New form sent to all local school districts	Superintendent of local school district	Not currently available	New form sent to institutions	Superintendent of institutions	Not available	New form required	Director of Day Care Centers	Not available
		HANDICAPPING CONDITION										
	INTRA-STATE TRANSFERS	**AGE**	Not available	Modification of existing forms	Division of Special Education	Not currently available	New form from the Department of Public Welfare must be supplied to institutions	Superintendent of institutions	Not available	Modification of existing form	Director of Day Care Centers	Not available
		HANDICAPPING CONDITION										
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	**AGE**	Available for mentally retarded children and those waiting in Minneapolis-St. Paul	New form needed for other handicapping conditions	Division of Special Education	Not currently available			Not available	Modification of existing form		Not available
		HANDICAPPING CONDITION										
		REASON										
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Available	Not applicable	Division of Special Education							
DATA USED TO SIMULATE SPECIAL EDUCATION	**EDUCATION PROGRAM MIX TRENDS**		Available	Not applicable	Division of Special Education							
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	**TARGET GROUP**	Currently available	Not applicable	Division of Special Education							
		EDUCATION PROGRAM										
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Currently available	Not applicable	Division of Special Education	Currently available	Not applicable	Superintendent of institutions	Available	Not applicable	Director of Day Care Centers	Not available

MISSISSIPPI STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

MISSISSIPPI STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Mississippi and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

The availability of information required by the Manpower Requirements Projection Model is very limited. There are, however, several well developed data categories including diagnostic information that would quite adequately support the model. In the categories where information is lacking, for example enrollment data, several data collection devices that are well established could, with modifications, capably support the model. There remains a third group of data categories, including "waiting list," where there are no data or forms that could be employed.

Due to the voluntary participation of the local school districts in special education, and the manageable number of participants, development of the data flows to the state level does not appear to be the major constraint. However, this development would require considerable effort.

The availability of special education staff to implement the model would be the most critical constraint. The data processing personnel appear willing and able to support the Special Education Office, but even the combined staff is very small in number.

Systems analysis capability from a source outside these two offices will be crucial to the implementation of the model in Mississippi. Also, access to a computer larger than the one in the Data Processing Office at the time of the visit will be necessary.

The special education staff and the other personnel interviewed were highly receptive towards the implementation and utilization of the model. The Special Education staff thought the data flows associated with the model would be of additional value in providing consultant services and making operational decisions. The expectation for implementation of the model in Mississippi is considered very good if the necessary assistance, as mentioned above and detailed in the report, is provided.

The cooperation received, especially from the special education director and staff, was excellent.

III. EDUCATIONAL RESPONSIBILITIES

The primary educational agency in Mississippi is the Department of Education, headed by the State Superintendent of Education, who reports to the State Board of Education (see Figure 1). The Department has the responsibility

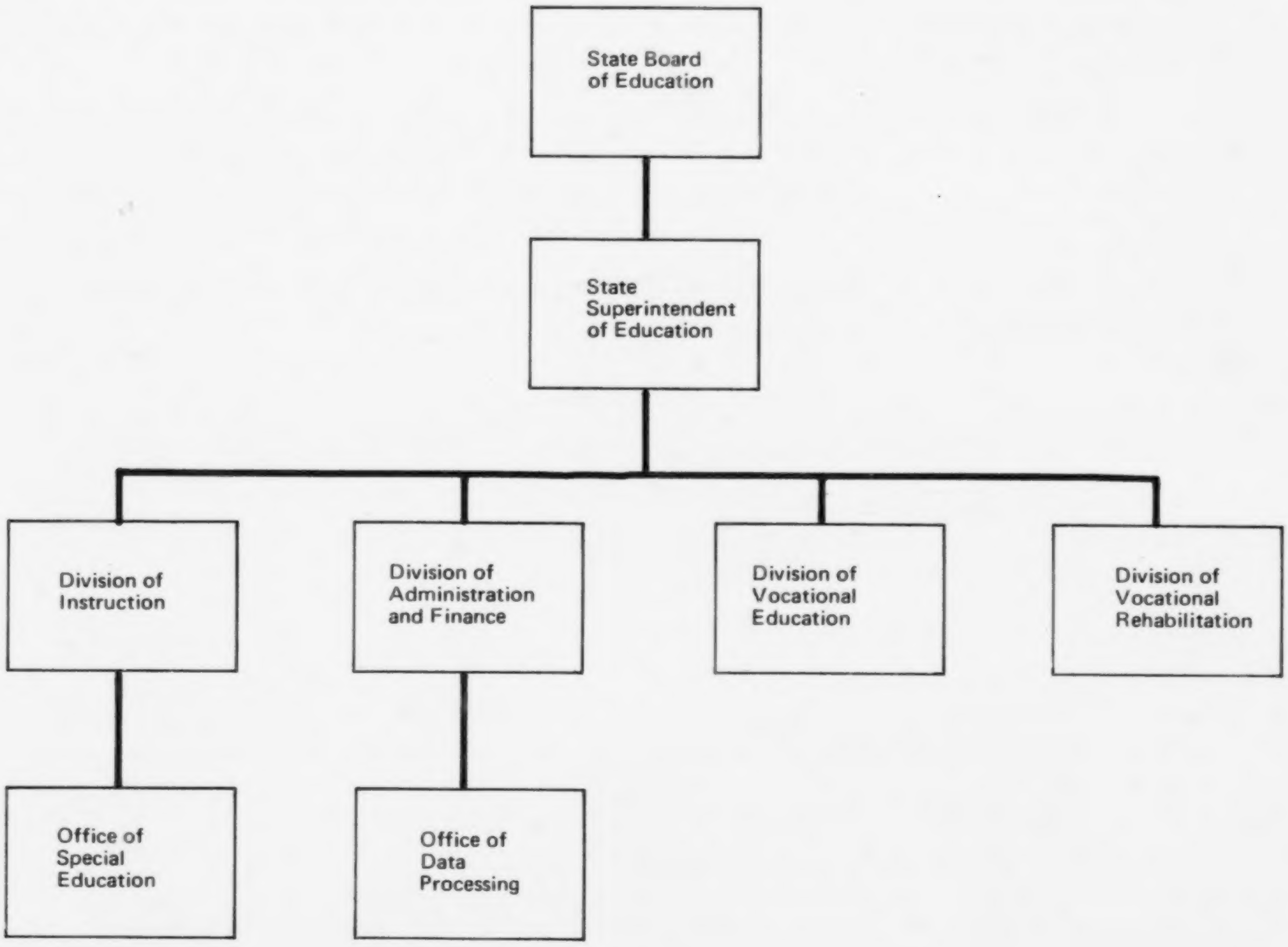
State Board of Education
State Superintendent of Education
Division of Instruction
Division of Administration and Finance
Division of Vocational Education
Division of Vocational Rehabilitation
Office of Special Education
Office of Data Processing

FIGURE 1. MISSISSIPPI DEPARTMENT OF EDUCATION (AGENCIES RELEVANT TO MANPOWER REQUIREMENTS PROJECTION MODEL)

for professional administration, supervision and consultant services to the public schools in Mississippi.

The department is organized into six divisions. Pertinent to the implementation and utilization of the model are the Division of Instruction including the Special Education Office, the Division of Administration and Finance, the Division of Vocational Education and the Division of Vocational Rehabilitation.

The Special Education Office has the responsibility for aiding the local community and school authority to establish classes for handicapped children, developing and promulgating policies and procedures for the establishment of these classes, and approving the facilities, teachers and the classes themselves.

The types of handicapped children for which educational services are provided in Mississippi include:

a. Educable mentally retarded

b. Trainable mentally retarded

c. Speech impaired

d. Perceptually handicapped

e. Hearing impaired

f. Emotionally disturbed

g. Homebound

h. Visually handicapped

i. Physically handicapped

The Special Education Office has entered into agreements with Division of Vocational Education and Vocational Rehabilitation for the purpose of providing vocational education and rehabilitation services to the physically and/or mentally handicapped young persons of secondary school age. Each group performs certain duties and responsibilities in the attempt to more effectively train the handicapped through cooperative classes. The Division of Vocational Education and the Division of Vocational Rehabilitation provide their services for handicapped pupils recommended by the Special Education Office through local sponsoring public schools. The Special Education Office has the responsibility for approving the cooperative classes, allotting the funds, and providing technical consultation, while the other divisions conduct the classes and provide supervision and special equipment.

The Division of Administration and Finance, Data Processing Office, is the service bureau for the entire Department of Education although their primary duties are financial and administrative data processing.

IV. DATA ELEMENTS EVALUATION

A number of specific data elements are necessary to the use of the projection model. The information which these data elements provide may also be very useful to the staff of the Special Education Office for operational analyses. These data elements, their development, and their potential sources are discussed in the following paragraphs and summarized in Table 1 at the end of this report.

Enrollment

The model requires three types of enrollment information. The number of enrollees is needed by type of handicap, single year of age, and educational program.

In general the enrollment information available in Mississippi is very limited. However, several data collection devices that are already well established could be modified to provide the three required enrollment data elements in a timely fashion.

The availability of enrollment data is discussed below by type of school, namely public and non-public.

Public Schools. In the fall of each year the local administrators of public schools submit to the state Division of Special Education "Data on Special Education Teachers and Classes," Form S6-69 (Section X, page D24-15). The "Type of Class" section indicates the type of handicap but the form would require modification to secure the number of enrollees by age and educational program. At present this form is manually reviewed and tabulated. Any data additions to the form would require additional tabulating help.

Another possible method of securing the required enrollment data elements for the handicap is to modify the Monthly Attendance Summary (Section X, page D24-16). This report is collected from each school by the Division of Administration and Finance.

The usefulness of this form is limited by the reporting of only full time special education students and without distinction to type of handicap. They are reported in total by educational level, i.e., elementary or secondary. To satisfy the model requirements the educational level would have to be refined to single grade and this would still be only an approximation of age. Also the type of handicap and the type of educational program would have to be included for all special education students and a provision made to report part time students. Although this reporting is more frequent than required by the model, the reports are automatically processed so the additional work required once the report is modified would be minimal. The data from this report could be automatically fed into the model eliminating the need for clerical staff time in Special Education which is overloaded due to present assignments.

A third possibility for securing enrollment information is to use the forms received and manually processed by the Special Education Office in the spring. In 1969 these forms were due at state level on April 1. Two forms are employed, one for speech correction, Form S4-SC-69/70 (Section X, page D24-17) and one for all other handicaps, Form S3-G-67 (Section X, page D24-18). Both forms indicate the type of handicap. The multi-handicap form provides the calendar age of each enrollee, while the speech correction form reports enrollees in age groupings of two or three years. The educational program, e.g., day special class, supplemental, or itinerant, is not explicitly stated on these forms; however, the state special education personnel can deduce the program from the type of handicap, at least in some instances. In cases where two or more programs are employed for a particular handicap, a provision for distinguishing them would have to be included to satisfy the needs of the model.

Non Public Schools. For reporting purposes, nonpublic schools include private and state schools including the schools for the blind and deaf.

An annual report is submitted by each nonpublic elementary and secondary school at the end of the school year. This report (Section X, page D24-19) contains enrollment data for handicapped children but does not indicate the type of handicap, age, or program. However, the name or type of institution would in several instances indicate the type of handicap (e.g., blind) and possibly the program (e.g., residential).

The state institutions including those for blind, deaf and cerebral palsied children enrolled about 500 in 1968-69. The few private schools serving the handicapped reported about 130 enrollees.

Waiting List

Waiting list data, or the number of children identified as handicapped but not receiving recommended educational services, is virtually nonexistent at the state level, particularly for public and private schools.

Public Schools. There is data flow already established for the information on the newly diagnosed. This is discussed in detail in the next subsection. The existence of this data should make feasible the development of data, which is not currently available for public schools, on those awaiting services.

A new form will have to be developed and it should indicate both age and the type of handicap.

Non Public Schools. If there are any handicapped children awaiting services in the private schools, their number is extremely limited.

There are waiting lists for the state institutions, and the age and handicap information could be secured from the director or superintendent of each.

The development of this data will require a new form. The form can be relatively simple and applicable to all types of schools.

Children Moving Into and Out of the Identified Handicapped Child Population

The model requires three specific data elements in this category, i.e., the newly diagnosed in need of special education, intrastate transfers, and attrition from the identified population. In each case the age and handicapping condition must be known to project the size of the target group.

As mentioned, the information on the newly diagnosed at the state level is available. A series of forms is used by the regional screening teams and the local survey committee to report identification, evaluation, and placement data to the Special Education Office. They include a Speech Correction Screening Form, S2-SC-69 (Section X, page D24-20), a Pupil Personnel Data Sheet for specific learning disabilities, S5-P4-68 (page D24-21) and a Pupil Personnel Data Sheet for the mentally retarded, S1-MR-69 (page D24-22).

These three forms adequately provide the data needed by the model on the newly diagnosed children. They are received throughout the year; however, the clerical staff is not available to tally all of the forms.

The data on children transferring or withdrawing from special education services is generally not available from the Special Education Group. However, the Monthly Attendance Summary received and tabulated by Data Processing does contain some elaborate breakouts of this information within the limitations discussed previously. An extensive set of codes is employed to indicate the reason for withdrawal or dropping out from regular or special education. This data is available to Special Education upon request.

An added benefit of this report may be the use of the data for referrals to special education. Since the dropout codes are employed for regular education students and since they indicate a possible handicapping condition, e.g., physical disability, mental disability and behavioral difficulty, the Special Education Group may be able to develop referral data.

For the institutional data in the last two categories, the source is again the institution itself.

General Child Population Projections

These are currently unavailable by single year of age for Mississippi children.

Projected Mix of Educational Programs

The Special Education staff will be able to estimate the future mix of educational programs on the basis of past enrollment trends in the various programs and the policy and program emphasis envisioned for the future.

Teacher/Pupil Contact Ratios

The ratios for grouping students by handicap with various types of special education personnel are available. These ratios are established by the policies of the Special Education Office and they are a function of type of handicap, educational program and use of para-professionals.

Special Education Personnel

The number of the various types of special educational personnel providing instruction and services is available from several sources.

As indicated in the enrollment subsection, the report "Data on Special Education Teachers and Classes", Form 56-69 (Section X, page D24-15), is collected by the Special Education Office in the fall of each year. This report would furnish the necessary data.

Also, the Division of Administration and Finance collects information on school personnel on October 1 of each year via the Certified Personnel Report and the Noncertified Personnel Report. Actually there are a variety of Certified Personnel Reports for various types of personnel and educational levels. Special education personnel are reported on several of the forms but all are essentially the same as the one illustrated (Section X, page D24-23).

These forms are processed automatically and can provide the model and Special Education with all the information required in this data category.

V. PROCESSING POTENTIAL

Hardware

There exists within the Department of Education, Division of Administration and Finance, a limited computer capability. A Honeywell 200 with 20K memory storage (24K word storage is required by the model) is the only computer within the department. This computer is adequate to handle a special education information processing system. If the operating system on the H-200 does not exceed 10K, this computer is also adequate to handle the Manpower Requirements Projection Model program. No projection for larger equipment was available.

Otherwise, computer time at either another state agency or an outside service bureau would have to be leased for the near term implementation of the model.

Personnel

The Division of Special Education has access to the programming and keypunch services of the staff of the Data Processing Office. This staff has FORTRAN experience and appears capable of and willing to assist the special education personnel in using the model and interpreting the outputs.

Processing

All customers of the Data Processing Office services (including keypunching) are billed on the basis of machine time utilized. The machine time is generally available as needed except during the period of heavy demand, which is traditionally September to January.

Attitude

The two processing supervisors interviewed appear to be receptive to the model and to associated processing demands. Within the limitations of the computer capability and the number of personnel, which are constraining, they seemed quite willing to assist in model implementation.

VI. ADDITIONAL FACTORS

The special education staff in Mississippi is limited in size to the extent that the effort they will be able to devote to implementing the new data flows and handling the data once it is collected will be extremely limited. In fact, their clerical staff appeared to be loaded to capacity with present commitments. However, it was apparent that the introduction of automated processing through the internal or an external service bureau, in conjunction with introduction of systems analysis talent, could free the special education clerical staff of considerable work, ease the crucial constraint, and facilitate the development of the data flows necessary for model implementation.

The special education staff is very receptive to the establishment of data flows including revisions to present forms which will aid them and support the model. In addition, their assistance and cooperation was excellent.

The development of comprehensive data flows on diagnoses, referrals and waiting lists should be considerably enhanced as the regional diagnostic centers are established throughout the state. Several of these regional centers are already functioning through a local and federal government financial partnership. More are expected in the near future. These centers are intended to centralize within a region a variety of services including diagnostic, treatment and instruction. The Mississippi Interagency Commission, comprised of representatives from Department of Welfare, Board of Mental Institutions, Department of Education, Department of Institutions for Higher Learning, and Department of Public Health, is staffing the regional centers for programs including vocational rehabilitation and special education.

These centers when more fully developed should provide a good basis for establishing data flows needed by the model. The development and validation of prevalence rates will become more feasible also.

VII. RECOMMENDATIONS

The following recommendations would, upon implementation, provide for the information flow of data elements necessary to the utilization of the Manpower Requirements Projection Model and improve the quality of information available for special education program management.

To achieve basic implementation of this model in the State of Mississippi, it is recommended that:

1. the type of handicap, single year of age, and educational program be collected, preferably in the fall, by modifying Form S6-69 or Forms S4-Sc-69/70 and S3-6-67. While the latter set of forms would require less modification, their present due date, April 1, is less timely from the standpoint of model needs than the fall due date of Form S6-69.

Modifications to the above special education forms appears more feasible than changes to the Division of Administration and Finance's Monthly Attendance Summary. This is due not only to the lack of control over the originating agency but also because of the extensiveness of the changes needed. However, the report does have some distinctive advantages if the changes can be made.

2. the age and type of exceptionality of those handicapped children awaiting special education services be developed. This will require the development of a new form and added processing capability at state level.

3. the age and handicap type of those children transferring or withdrawing from special education be developed. This can be done either by developing a new form or extensively modifying the Monthly Attendance Summary reporting.

4. projections of general child population be developed annually by single year of age for the age span covered by special education.

5. an outside service bureau be employed for implementation and maintenance of proposed data flows until such time as the internal education processing group achieves the computer capability to service and support the effort.

6. statewide prevalence rates be developed for those exceptionalities not currently compiled in Mississippi so that prevalence rates can be used as an interim method of estimating the total handicapped child population. Prevalence rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data including the referral and diagnostic data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternate methods of validating these rates.

7. the mix of enrollments by educational program, e.g., cooperative class, homebound and day special class, be projected by the Special Education staff on the basis of historical enrollment patterns and policy changes or other factors that would affect the state's emphasis on educational programs in the future.

To achieve improvement in the quality and quantity of information developed, the following corrollary suggestions are offered:

1. The existing and proposed forms will provide the data required by the Manpower Requirements Projection Model. However, the reliability and consistency of the data may be improved if the personnel completing the form have some (additional) direct guidance and reinforcement. This may be accomplished in several ways:
    a. Explain the need and purpose of the data in addition to defining the terminology.
    b. When visiting the local districts and conducting workshops, discuss the forms and their use. Also discuss the model and its benefit to local special education as well as to the state.
    c. Provide feedback to the local districts on results of data collected, including summaries and special studies.

The recommendations and corollary suggestions offered, if implemented, should result in successive improvements in the completeness and the accuracy of the data elements over time, with validity being achieved within a few years. Later documents pertaining to this project contain additional information about methods which may be used to estimate some of the data elements until a good information flow is developed and validated.

VIII. RESOURCE REQUIREMENTS—MANPOWER

The Mississippi special education staff will require assistance in implementing the recommendations made in Section VII. In addition to the cooperation and assistance of the various agencies at the state and local levels which will be involved in implementing and maintaining or operating the Manpower Requirements Projection Model, systems analysis capability will be required in both phases.

This talent is required at the time of implementation to aid in modifying and desigining keypunchable forms and in programming and designing the system. In addition, the systems analyst(s) should assist in training state and local personnel, writing procedures, and coordinating technical aspects among the various groups exchanging data and results. A systems analyst will be required for approximately 3 months over a 2-year period to effect the recommendations necessary for the implementation phase. In addition the services of the special education staff for 3 man-months, a forms designer for 1 man-month, and a programmer for 1 man-month will be required.

During the operation of the system, i.e., once system implementation is achieved, systems analysis capability will again be required to ensure system validation perhaps to refine and improve the data flow design, as well as to update the training of the state special education staff. This effort will require approximately 5 man-weeks of combined effort per year.

The source of this systems analysis talent for the implementation phase will have to be additional staff or external personnel. For the maintenance phase, the internal education processing group may be capable and willing to provide the systems analysis service. If not, additional staff or personnel from an external source will again be required.

IX. PERSONS INTERVIEWED

The persons interviewed by Operations Research, Inc. (Leasco) representative, Mr. Joe Kelly, during the October visit to Mississippi were:

Mr. Herman K. White	Supervisor, Special Education, Department of Education
Mrs. Marilyn B. Allen	Consultant, Special Education, Department of Education
Mrs. Carolyn R. McGuire	Consultant, Special Education , Department of Education
Miss Virginia Ford	Consultant, Special Education, Department of Education
Mr. James Clauench	Coordinator, Interagency of Health and Mental Retardation
Miss Ruby Thompson	Supervisor, Finance and Statistics, School Finance and Research, Division of Administration and Finance
Mr. Robert W. Lyles	Supervisor, Data Processing, Data Processing Office, Division of Administration and Finance
Mrs. Mary Ellington	Supervisor, Operations, Data Processing Office, Division of Administration and Finance

X. CURRENT REPORT FORMATS

Included in this section are samples of the existing forms being used in Mississippi for collecting information that is pertinent to the needs of the Manpower Requirements Projection Model as described in the preceeding sections. The forms included are:

Form No.	Form Title
S6-69	"Data on Special Education Teachers and Classes"
	"Monthly Attendance Report"
S4-SC-69/70	"Data on Speech Correction Units"
S3-G-67	"Data on Exceptional Children"
	"Annual Report for Nonpublic Elementary and Secondary Schools"
S2-SC-69	"Speech Correction Screening Form"
S5-PH-68	"Pupil Personnel Data Sheet"
S1-MR-69	"Pupil Personnel Data Sheet"
	"Certified Personnel Report"

Form S6-69

DATA ON SPECIAL EDUCATION TEACHERS AND CLASSES

Name and Mailing Address	Certificate	Type of Class	Type of Financing
Name: ____________ Home Address: ____________ ____________	Type: Certificate___; Permit___ Number: ______ Grade: AA___; A___; Other___	EMR___; TMR___; SC___; Coop. SE-VR ___ Other (Identify) ______ ____________	State___; Title I ___ Title VI ___ Other (Identify)___ ____________
Name: ____________ Home Address: ____________ ____________	Type: Certificate___; Permit___ Number: ______ Grade: AA___; A___; Other___	EMR___; TMR___; SC___; Coop. SE-VR___ Other (Identify)_____ ____________	State___; Title I ___ Title VI _____ Other (Identify)____ ____________
Name: ____________ Home Address: ____________ ____________	Type: Certificate_____; Permit____ Number: ________ Grade: AA___; A___; Other___	EMR___; TMR___; SC___; Coop. SE-VR ____ Other (Identify)_____ ____________	State____; Title I____ Title VI _____ Other (Identify)_____ ____________

____
Signature of School Administrator

____
Date

____
School

____
Address

(REPRODUCED FROM STATE FORM)

State of Mississippi
DEPARTMENT OF EDUCATION
MONTHLY ATTENDANCE SUMMARY

DATE MO YR

GRADE

DAYS TAUGHT

DISTRICT ______________________________ DIST. NO. ________

SCHOOL ______________________________ SCHOOL NO. ________

1 MEMBERSHIP PREVIOUS MONTH (Blank for 1st month)

ENTRIES

ORIGINAL
- E1 — First Regular Enrollment This Year ________
- E2 — Transfer From Other State ________

RE ENTRIES
- R1 — Transfer Within School ________
- R2 — Transfer From School in District ________
- R3 — Transfer From School Outside District ________
- R4 — Transfer From Non-Public School in State ________
- R5 — Re-Entry After Withdrawal (explain withdrawal code after re-entry) ________

3 TOTAL MEMBERSHIP FOR MONTH

4 WITHDRAWALS | R 5 Pupils | WITH DRAWALS

TRANSFERS
- T1 — To Another Room in This School ________
- T2 — To Another School in This District ________
- T3 — To School Outside This District ________
- T4 — To Non-Public School ________

- C1 — Completion — Graduation From High School ________
- C2 — Completion of Terminal Program ________
- C3 — Completion of Other School Work ________
- D — Drop-Outs (Explain Below) ________
- Z1 — Deaths ________

TOTAL WITHDRAWALS ________

5 NET MEMBERSHIP

6 AGGREGATE ATTENDANCE
- A Transported Pupils Living in District ________
- B Transported Pupils Living Out of District ________
- C Non-Transported Pupils ________
- D Total ________

(REPRODUCED FROM STATE FORM)

7 Aggregate Absences ________

8 Days Off Roll ________

DROP-OUT EXPLANATION CODES

	R 5 Pupil	NO DROPOUTS
01 Physical Illness		
02 Physical Disability		
03 Mental Illness		
04 Mental Disability		
05 Behavioral Difficulty		
06 Academic Difficulty		
07 Lack of Appropriate Curriculum		
08 Poor Pupil-Staff Relationships		
09 Poor Relations with Pupils		

	R 5 Pupils	NO DROPOUTS
010 — Dislike of School Experiences		
011 — Parental Influence		
012 — Need at Home		
013 — Economic Reasons		
014 — Employment		
015 — Marriage		
016 — Pregnancy		
017 — Other Known Reason		
018 — Reason Unknown		
019 — New Residence, School Status Unknown		
TOTAL		

OUT OF DISTRICT CODE	NUMBER ENROLLED OUT OF DISTRICT	TOTAL DAYS ATTENDED TRANS. PUPILS OUT OF DISTRICT	TOTAL DAYS ATTENDED NON TRANSPORTED
TOTAL			

DIVISION OF ADMINISTRATION AND FINANCE

Check: Item 3 Multiplied by Total Days Taught Will Equal 6D + Item 7 + Item 8

D24-16

Form S4-SC-69/70

STATE OF MISSISSIPPI
DEPARTMENT OF EDUCATION
DATA ON SPEECH CORRECTION UNITS

District____________________

Schools Served____________________

____

School Year____________________

Date of this Report____________________

Type of Class____________________

Teacher's Name____________________

Source of Financing____________________
(private, Minimum Founadtion, Title I, VI, Combination of these, etc.)

1. Number of pupils served during current school year: Males___Females_____
2. Number of pupils currently enrolled:______
3. Screening Team used:____________________
4. Number of pupils by Age Group in each type of speech problem dealt with:

Age Group	6-7	7-9	10-12	13-15	16-18	19&over	total
(a) Articulation							
(b) Cerebral Palsy							
(c) Cleft Palate							
(d) Hearing Problem Defects							
(d) Stuttering							
(f) Voice							
(g) Others							

I certify that all of the pupils served through this unit of the public school speech correction program have been approved by an official Special Education Screening Team.

Signed____________________

Title____________________

(To be signed by local school administrator)

(REPRODUCED FROM STATE FORM)

Form S3-G-67

District____________________________
Location of Class________________________
School Year______________________________
Date of this Report_______________________

STATE OF MISSISSIPPI
DEPARTMENT OF EDUCATION
DATA ON EXCEPTIONAL CHILDREN

Type of Class____________________________
Teacher's Name__________________________
Source of Financing(Underline one or more):
Private, Minimum Foundation, Title I,
Title VI, Other(Specify):_____________

Child's Name	Birth Date	Sex	Psychological Information					Medical Diagnosis (if avail.)	Date Placed In Class	School Transferred From	Remarks
			Examined By	Binet IQ	Wechsler IQ						
					Ver.	Per.	Full Sc.				

(REPRODUCED FROM STATE FORM)

D24-18

0170 - 132

ANNUAL REPORT FOR
NONPUBLIC ELEMENTARY AND SECONDARY SCHOOLS

School Session 19 68 - 19 69

Name of School: Cathedral Elem.
Address: 701 N. Pine Street
County: [illegible] [illegible]
White ✗
Negro ✗

A. DESCRIPTION OF SCHOOL (Check one in each group or supply requested data)

1. Organization of School
   - 6-3-3 ☐
   - 6-6 ☐
   - 8-4 ☐
2. School includes
   - A. Elementary grades Kg To 6
   - and
   - B. Secondary grades ____ To ____
3. Length of school term in days[1] 178
4. Secular or Nonsecular
   - A. Not church related ☐
   - B. Church related (specify denomination) R. C. ☑
5. Day School or Boarding
   - A. Day school only ☒
   - B. Boarding School primarily ☐
   - C. Both ☐

B. ENROLLMENT AND AVERAGE DAILY ATTENDANCE BY GRADES

ITEM	N & K	1	2	3	4	5	6	7	8	9	10	11	12	Spec. Ed.	Total
1. Original Entries[2] A. E[1] Entries	40	48	32	36	31	37	34								258
B. E[2] Entries (Trans. from another state)	2	2	2	1	1	1	2								[illegible]
C. Total original entires	42	50	34	37	32	38	36								[illegible]
2. Re-entries[3]	1		1			[illegible]									3
3. Withdrawals	2	2	1	2	2	2	2								11
4. Net Membership[4] (1c + 2 - 3)	40	48	32	35	[illegible]	37	[illegible]								258
5. Total days present	6731	8152	5519	6005	5519	6357	[illegible]								[illegible]
6. Total days absent	359	392	252	225	[illegible]	227	183								[illegible]
7. Average Daily Attendance (Item 5 divided by total days taught)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]								[illegible]

(REPRODUCED FROM STATE FORM)

8. Number of Graduates Boys ____ Girls ____ Total ____ Number planning to enter college, junior or senior Boys ____ Girls ____ Total ____

C. NUMBER OF SECULAR AND NONSECULAR TEACHING POSITIONS (Not Individuals) BY LEVEL: (If Half or More of a Staff Member's Principal's, Librarian's, etc.) Time is devoted to Teaching, that part of his position should be assigned to the proper level below

Level of Teaching positions	Nursery & Kindergarten	Elementary	Secondary	Total Number of positions
Number of positions	1	[illegible]		7

6. NUMBER OF PRINCIPALS ________

---

[1] A day in session is a day on which the school is open, and the pupils are under the guidance and direction of teachers in the teaching process. Days on which school is closed for such reasons as holidays, teacher's institutes, and inclement weather should not be counted as a day in session.

[2] E1's include pupils who enrolled for the first time in the United States in either a public or nonpublic school for the school year for which the report is made. E2's include pupils who were previously enrolled for the school year in a public or nonpublic school in another state and who have **not previously** been enrolled in Mississippi.

[3] Re entries—For each school year, the pupils received from another classroom in the same school or another school in the State. In every case, these pupils have already been recorded as original entries in some school in the State.

[4] Net Membership is the number of pupils on roll at the end of the school session.

INFORMATION SUPPLIED BY [illegible] Title [illegible] Date June 4, 1969

Form S2-SC-69

(Submit in duplicate)

STATE DEPARTMENT OF EDUCATION
Woolfolk Building
P. O. Box 771
Jackson, Mississippi 39205

______________________ School District

SPEECH CORRECTION SCREENING FORM

STUDENT IDENTIFICATION

Name ______________________ Sex ______ Date of Birth __________

School ______________________ Grade ____ Parent/Guardian __________

Home Address ______________________ Phone No. __________

____

SPEECH EVALUATION Date of Evaluation __________

Type of Defect (Specify, where applicable)

Articulation:

Distortion ______________

Omission ______________

Substitution ______________

Defective Blends ______________

Hearing Impaired ______________

Stuttering ______________

Voice ______________

Cleft Palate ______________

Other ______________

Number of years receiving speech correction _____

Recommended for speech correction? Yes ____ No ____ Comments __________

____

______________________ Evaluated by ______________________

____

REPORT OF REGIONAL SCREENING TEAM (NOT FOR LOCAL COMMITTEE)

Approved ____ Not approved ____ for a class speech correction.

Recommendations ______________ ______________

______________ ______________

(REPRODUCED FROM STATE FORM)

Date __________ ___19__ Signed:

Center __________ __________ ______________________

Screening Team Chairman

(After completion by the Regional Screening Team, the original should be sent to the Supervisor of Special Education at the above address and the copy to the school.)

Form [illegible]

(Submit in duplicate)

STATE DEPARTMENT OF EDUCATION
Woolfolk Bldg.
P.O. Box 771
Jackson, Mississippi 39205

_______________ Public Schools

PUPIL PERSONAL DATA SHEET

STUDENT IDENTIFICATION

Name ______________________ Sex ________ Race ________ Date of Birth ______________

Home Address ______________________ Phone No. ______________ Grade ________

Parent or Guardian ______________________ Reason for Referral ______________________

STANDARDIZED TEST RECORD

NAME OF TEST	Scores (grade equiv. %ile, IQ, etc.)					EXAMINER	DATE ADMIN.
	Reading	Arith.	Lang.	Battery	IQ		

SUMMARY OF PSYCHOLOGICAL REPORTS (Attach complete reports, test booklets, drawings, etc.)

SCALE USED				EXAMINER	DATE ADMIN.
Visual Motor Test (Bender Gestalt, Winterhaven, etc.)					
	Arith. Gd.	Read. Gd.	Spell. Gd.		
Individual Achievement Test					
	Scores				
	Verbal	Performance	Full Scale		
Wechsler Intelligence Test					

Subtest Scaled Scores

Information ________
Comprehension ________
Arithmetic ________
Similarities ________
Vocabulary ________
Digit Span ________
Pict. Comp. ________
Pict. Arrang. ________
Block Design ________
Obj. Assemby ________
Coding ________
(Digit Symbol)

Comments (Significant findings, problems, etc.) ______________________

REPORT OF REGIONAL SCREENING TEAM (NOT FOR LOCAL COMMITTEE)

Eligible ________ for Classes for the Perceptually Handicapped

Ineligible ________

Eligible on Trial ________

Signed: ______________________ Chairman

Date: ______________________

Center: ______________________

(REPRODUCED FROM STATE FORM)

Suggestions for furthe ______________________

____

Form S1-MR-69

STATE DEPARTMENT OF EDUCATION
Woolfolk Bldg.
P. O. Box 771
Jackson, Mississippi 39205

District ____________________

School ____________________

PUPIL PERSONAL DATA SHEET

(Submit in Duplicate)

STUDENT IDENTIFICATION

Name ____________________ Sex ______ Race ______ Date of Birth ______

Home Address ____________________ Phone No. ______ Grade ______

Parent or Guardian ____________________ Reason for Referral ____________________

STANDARDIZED TEST RECORD

NAME OF TEST	Scores (grade equiv., %ile, IQ, etc.)					Examiner	Date Admin.
	Reading	Arith.	Lang.	Battery	IQ		

(REPRODUCED FROM STATE FORM)

SUMMARY OF PSYCHOLOGICAL REPORT(S) (Attach complete report)

SCALE USED	Score (IQ, SQ, etc.)			EXAMINER	Date Admin.
	Verbal	Performance	Full Scale		
	C.A.	M.A.	I.Q.		

Comments (Significant findings, problems, etc.) ____________________

REPORT OF REGIONAL SCREENING TEAM **(NOT FOR LOCAL COMMITTEE)**

Eligible ______ for Educable MR ______ Signed: ____________________ Chairman

Ineligible ______ Trainable MR ______ Date: ____________________

Eligible on Trial ______ Center: ____________________

Suggestions for further services: ____________________

____

State of Mississippi

DEPARTMENT OF EDUCATION

SCHOOL SESSION 1969-1970 SCHOOL

CERTIFIED PERSONNEL REPORT

ELEMENTARY AND SECONDARY

(REPRODUCED FROM STATE FORM)

DIST.__________ SCHOOL __________

1 DIST	2 SCHOOL	3 LOC	4 SOCIAL SECURITY	5 LAST NAME	FIRST	I	6 CERT. NO.	VAL. PERIOD FROM	VAL. PERIOD TO	9 EXPERIENCE TOTAL	EXPERIENCE DIST 10
1130	100	20	426 34 2708	Adams	Barbara	M				05	-00

FIRST ASSIGNMENT				SECOND ASSIGNMENT				THIRD ASSIGNMENT			
11	12	13	14	15	16	17	18	19	20	21	22
LEVEL	AREA	ACT	% TIME	LEVEL	AREA	ACT	% TIME	LEVEL	AREA	ACT	% TIME
1	20	23	49	4	20	23	51				

23	24	25	26	27	28
DIST TIME	SCHOOL TIME	FED PROG	WEEK EMP	CONTRACT SALARY	MAINT VALUE
100	100	1	36	4800	

For a 100% Staff Member with two equal assignments, show one assignment at 51% and the other at 49%.

29	30	31
SEM HRS SINCE LAST RPT. SEM. HRS	SEM HRS SINCE LAST RPT. END AREA	SEM HRS ABOVE BA IF NO MASTERS
12	43	

32 ASSIGNED TO MORE THAN ONE SCHOOL

YES ________

OTHER SCHOOL

SCHOOL NUMBER

33	34	35
TERM REASON	NEW TEACHER SOURCE	NEW TEACHER STATE

TEACHING OR NONTEACHING ASSIGNMENT

36	37	38		39	40	41	42	43	44	45
PERIOD	COURSE CODE	GR	TITLE	ENR	MIN. WEEK	WKS PER YR	SEM HRS EACH FIELD	SEM HRS IN SUBJ.	DEPT HEAD END CODE	LESS THAN DEG TOT. HRS
1	4399	05	Music, Elementary	45	225	36	24			
2	4399	06	Music, Elementary	35	225	36				
3	4302	09	Choral Music I	30	225	36				
4	9007		Unassigned Time							
5	4303	93	Choral Music II	50	225	36				
6	4203	92	Orchestra Jr. High	45	225	36				
7										

46 PERMIT TEA. NO. OF PROF. HRS.

GRADE COMB CODE

90	1 – 6, 1 – 8 (Elem.)
92	7 – 8, 7 – 9 Junior High
93	9 – 12 7 – 12 or 8 – 12
94	10 – 12
95	Other Sec. Grade Comb.
98	Neighborhood Youth Corp

Regular Elem.: Complete Item 36 – 39 if teaching one grade, and complete item 45 if training less than BA Degree. See Blue example sheet. Elementary Special subject teacher complete each period.

Grade column: Use only two digits in this column. See codes above for grade combinations.

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
MISSISSIPPI

			PUBLIC SCHOOLS			NONPUBLIC (INCLUDING INSTITUTIONS) SCHOOLS		
DATA ELEMENTS			**CURRENT STATUS**	**METHOD OF DEVELOPMENT**	**SOURCE OF DATA**	**CURRENT STATUS**	**METHOD OF DEVELOPMENT**	**SOURCE OF DATA**
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	**ENROLLED**	**AGE**	Available in spring	Modify Form S6-69 or S3-G-68	Local school administrator	Only grade available	Develop a new form	Private schools or state institutions (less than 12)
		HANDICAPPING CONDITION	Available in fall and spring			Available only from institutions		
		EDUCATION PROGRAM	Not available			Can be determined for most schools		
	ON WAITING LIST	**AGE**	Not available	Develop new form	Local school administrator	Not available	Develop a new form	Private schools or state institutions (less than 12)
		HANDICAPPING CONDITION	Not available			Not available		
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	**NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION**	**AGE**	Available	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
		HANDICAPPING CONDITION	Available			Not applicable		
	INTRA-STATE TRANSFERS	**AGE**	Not available	Develop new form or modify Monthly Attendance Summary	Local school administrator	Not available	Use same form developed for public schools	Institutions
		HANDICAPPING CONDITION	Not available			Not available		
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	**AGE**	Not available	Develop new form or modify Monthly Attendance Summary	Local school administrator	Not available	Use same form developed for public schools	Institutions
		HANDICAPPING CONDITION	Not available			Not available		
		REASON	Not available			Not available		
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Unavailable					
DATA USED TO SIMULATE SPECIAL EDUCATION	**EDUCATION PROGRAM MIX TRENDS**		Not available	Estimate by Special Education staff	Staff data			
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	**TARGET GROUP**	Available	Not applicable	Not applicable		Not applicable	Not applicable
		EDUCATION PROGRAM	Available					
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available					

MISSOURI STATE ANALYSIS REPORT

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X. CURRENT REPORT FORMATS D25-18

The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated to not, therefore, necessarily represent official Bureau position or policy.

MISSOURI STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Missouri, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

Within the Missouri Department of Education, Division of Special Services, the Special Education Section receives enrollment data each year from special education programs operating in local public schools. Most other data elements that would be needed for application of the Manpower Requirements Projection Model would have to be developed by Special Education. The Director of Special Education expressed interest in obtaining the model, and would be willing to develop as much of the needed data as possible in order to utilize the model. Interest in the capability of the model was also expressed by the Assistant Commissioner of the Division of Special Services, and he and the Director of Special Education were both very cooperative in providing information relevant to feasibility of model installation.

In addition to the Special Education Section, the School for the Blind and School for the Deaf are administered at the state level by the Division of Special Services. Good cooperation in providing data for model application is anticipated from these schools.

State Schools for Retarded Children (trainable) are administered by the Division of Administration, and these schools account for a significant number of handicapped children served in the state. The Director of these schools was also interested in model capability, and was very cooperative in providing information on his operations.

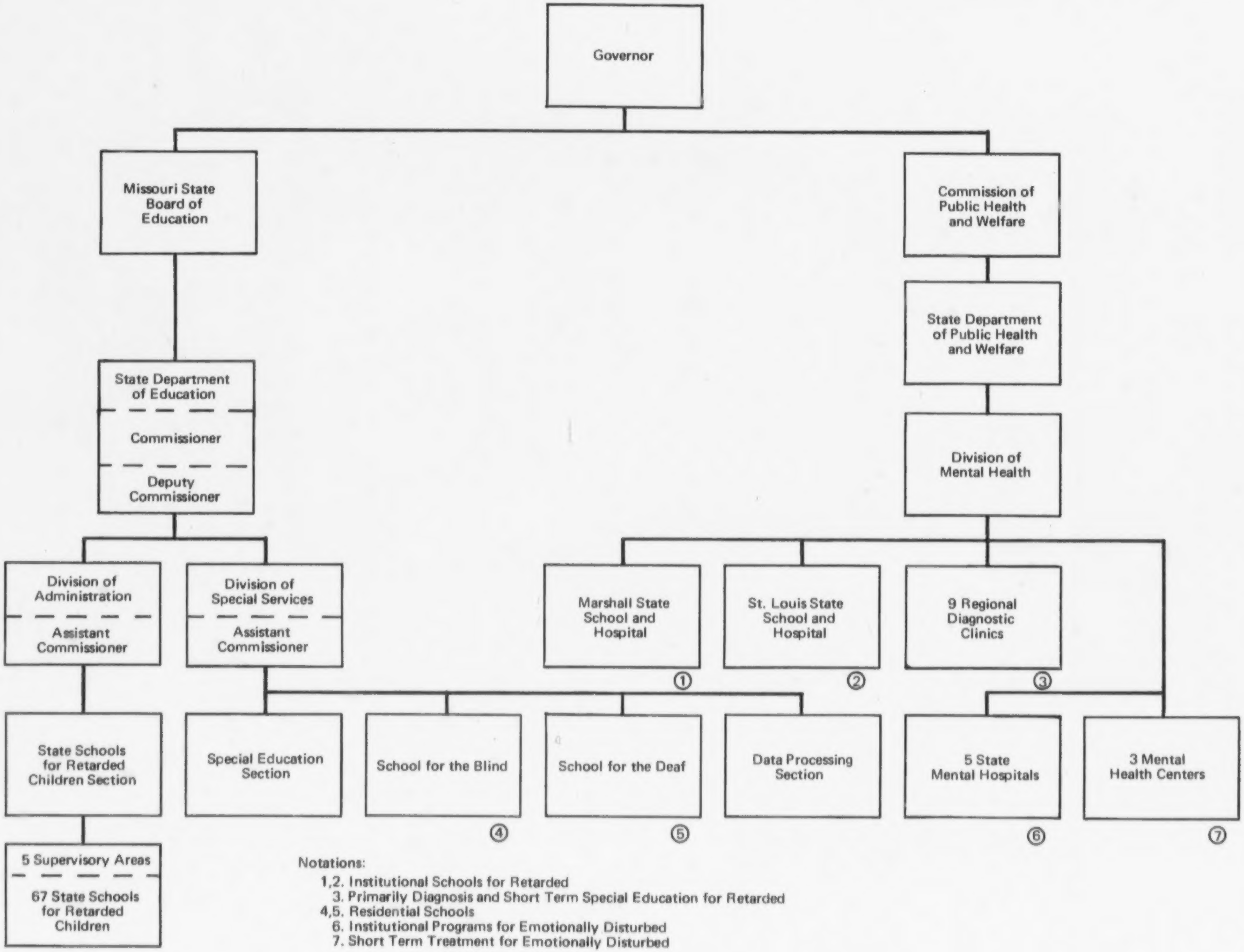
In addition to these Department of Education programs, the Department of Public Health and Welfare, Division of Mental Health, administers institutional programs for mentally retarded and emotionally disturbed children. The Division could coordinate the collection of needed data from the institutions, and provide this data to Special Education for inclusion in the model. Good cooperation is anticipated from the Division.

Special Education does not now utilize the automatic data processing (ADP) capability that exists within the Division of Special Services. The installation of the model would require that Special Education establish an interface with the Data Processing Section, both for running the model, and for processing the input data for the model.

Alternative approaches possible for model data collection and tabulation range from manual collection and tabulation, to partial ADP tabulation, to an ADP-based updating system. The volume of records and the number of children involved here suggests the application of ADP capability to the fullest extent possible, within constraints of resources made available for model implementation.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The structure of educational services for handicapped children in Missouri is illustrated on the informal organization chart shown in Figure 1. All public school education in the state of Missouri is under the auspices of the Missouri State Department of Education, headed by a Commissioner, and


Governor
Missouri State Board of Education
Commission of Public Health and Welfare
State Department of Public Health and Welfare
Division of Mental Health
State Department of Education
Commissioner
Deputy Commissioner
Division of Administration
Assistant Commissioner
Division of Special Services
Assistant Commissioner
Marshall State School and Hospital
①
St. Louis State School and Hospital
②
9 Regional Diagnostic Clinics
③
State Schools for Retarded Children Section
Special Education Section
School for the Blind
④
School for the Deaf
⑤
Data Processing Section
5 State Mental Hospitals
⑥
3 Mental Health Centers
⑦
5 Supervisory Areas
67 State Schools for Retarded Children

Notations:
1,2. Institutional Schools for Retarded
3. Primarily Diagnosis and Short Term Special Education for Retarded
4,5. Residential Schools
6. Institutional Programs for Emotionally Disturbed
7. Short Term Treatment for Emotionally Disturbed

FIGURE 1. ORGANIZATION OF EDUCATIONAL SERVICES FOR HANDICAPPED CHILDREN IN MISSOURI

responsible to the Missouri State Board of Education. Within the Department of Education is the Division of Special Services, headed by an Assistant Commissioner, and within this Division is the Special Education Section. This Section is responsible, at the state level, for the administration of special education programs conducted in local public schools in the state. This includes programs for blind and partially seeing, deaf and hard of hearing, learning disabilities, emotionally disturbed and/or socially maladjusted, orthopedically handicapped, speech correction, educable mentally retarded, and some trainable mentally retarded (in special school districts only).

Two state residential schools for handicapped children, the School for the Blind in St. Louis, and the School for the Deaf in Fulton, are also administered by the Division of Special Services.

Special education for most trainable mentally retarded children is administered at the state level by the State Schools for Retarded Children Section of the Division of Administration, also headed by an Assistant Commissioner. There are currently 65 state schools for retarded children spread throughout the state, and these schools are serving over 1700 children.

In addition to the Department of Education, the Missouri State Department of Public Health and Welfare, through its Division of Mental Health, administers the Marshall State School and Hospital, the St. Louis State School and Hospital, and eight Regional Diagnostic Clinics (a ninth is under construction) for mentally retarded children. While special education classes are conducted in these clinics, they are essentially short term, and children are held until diagnosed and placed in a longer-term residential or special school, or returned home. The Division also administers programs for emotionally disturbed children at five state mental hospitals and three mental health centers (Western, Central, Eastern). These centers are engaged in more short-term intensive treatment of children.

The Data Processing Section which serves the Department of Education is also within the Division of Special Services. Special Education would relate to this facility for the data processing support needed for model application in the state.

IV. DATA ELEMENT EVALUATION

Enrollment

For special education programs operating in local public schools, data on enrollments is currently available at the state level. By October 15 of each year, Special Education receives an Application for Class Approval form for each special education class being conducted. This form lists the pupils enrolled in the class by name, sex, age, grade, and other specific items relevant to each specific handicap. There is a separate version of this form containing information specific to each type of handicapping condition. (A copy of this form is contained in Section X, page D25-19 of this report.) While the forms report on each class conducted, they do not differentiate program types, e.g., day special class, cooperative class, resource room. The Director of Special Education feels that children are, in fact, receiving instruction in different types of programs, depending upon the severity of the handicap, but there has been no need in the past to differentiate program types at the state level.

Special Education also receives an Application for Home Teaching form for each child identified as needing home instruction. This form is received each year for each child, and lists, among other items, the child's name, age, and handicapping condition. In addition, Special Education receives, from each district each year, a form entitled Application for Approval of Reimbursement (for) Home Instruction, listing all children approved for home teaching, and who received home teaching, by name, age, handicap, and other information items needed. (Copies of both of these forms are contained in Section X, pages D25-20 and D25-21, of this report.)

The receipt of these forms provides Special Education with a listing of all handicapped children enrolled each year, by age and handicap, and by class or homebound program type.

During the 1968-69 school year, over 50,000 handicapped children were enrolled in public school programs administered by Special Education. Because data processing is not now being utilized, the Director of Special Education stated that counts by age, handicap, and program, for inclusion in the model, could be done manually, and would probably require the addition of part-time clerical personnel to Special Education for this purpose.

While this manual tabulation would satisfy model input requirements, consideration should be given to the application of data processing to data collection on special education programs. This application, for purposes of illustration, could take two alternative forms. First, pupil data currently received on Application for Class Approval forms could be keypunched upon receipt. Special Education could then obtain printouts of pupils, and/or counts of pupils, by age, handicap, school, district, or any other combination of data elements desired. The second alternative could take this a step further, that is, pupil data on age, handicap, grade, sex, etc., could be printed out, each semester or each year, on rosters which could represent school districts, individual schools, or individual classes. For pupil accounting purposes, Special Education could provide these rosters to the appropriate districts or schools, and local personnel could then update the rosters, indicating status of each child during the semester or year, e.g., enrolled, transferred, dropped out, etc. (this will be discussed in greater detail in subsequent paragraphs). The use of a roster system of this type would eliminate the need for the annual receipt of the Application for Class Approval forms, and could also eliminate the need for annual receipt of Application for Approval of Reimbursement (for) Home Instruction forms. As new children are enrolled, their names (and other basic data) could simply be added to the rosters. Upon receipt by Special Education, the rosters would be processed, and new, updated rosters would then be returned to the appropriate districts or schools (in much the same manner that approved copies of the Application forms are now being returned to them).

Unserved Handicapped Child Population

Within the Special Education Section, there is no data available on the number of children diagnosed as needing special education, but not yet enrolled in a program. The Director of Special Education advised that the local District Superintendents or Special Education Directors and Supervisors would be the best sources for this "waiting list" data from public school programs. For Special Education to obtain counts of children waiting for enrollment, by age and handicap, the cooperation of these local administrators would have to be obtained.

Most diagnoses of handicapping conditions are performed by School Psychological Examiners and School Psychologists. Audiometrists, Audiologists, Pediatricians, Doctors, and other supportive personnel are also involved in diagnoses.

District Superintendents are in a position to monitor referrals for diagnosis. In districts having Special Education Directors, they too handle referrals for diagnosis. In addition, Superintendents and Directors are advised when children are, in fact, diagnosed as handicapped.

Data on handicapped children waiting to be enrolled in programs could be collected at the district level in summary form, and forwarded to the state level at the beginning of each year. A simple matrix form, indicating years of age and handicapping conditions, could be developed for use by each district.

If, as an alternative, data processing could be applied to information collection (as described in the previous paragraphs on enrollment), waiting list data could also be handled through a roster system. Two approaches could be considered (as examples). First, a separate roster listing names, ages, handicaps, etc., for children diagnosed but not yet enrolled could be maintained by each district. As children are identified during the year, they are added to the roster; as they change status during the year (e.g., are enrolled, dropout, etc.), this is indicated on the roster, probably with codes. This roster could be maintained and handled in the same manner as the roster on enrollments.

A second possible approach could involve the use of a single roster listing all children identified as handicapped, both enrolled and waiting to be enrolled. Each district could place each child on the roster as he is identified, and indicate, probably by code, the status of each child—whether enrolled, waiting to be enrolled, or other (to be discussed in detail in subsequent paragraphs). The rosters could be forwarded to the state level where the data could be tabulated, and the rosters reprinted and returned to the districts for on-going maintenance and update.

There is currently no data at the state level on the number of children newly diagnosed as handicapped each year in the state. There is no centralized diagnostic system for handicapped, and so determining an accurate incidence rate is difficult for Special Education. A few studies have been done on incidence for Title VI programs, but this is not a regular practice.

In the absence of actual incidence rates for Missouri, estimates of the unserved child population can be made based upon national statistics and the local incidence studies that have been made. Applying these rates is useful as an interim method of estimating the handicapped population, but over an extended period of time, these rates should be validated using actual incidence data collected in the state. Later documents pertaining to this project will contain more detailed descriptions of methods for validating these rates.

As a starting point in the development of annual incidence rates, District Superintendents and Special Education Directors could be asked to monitor their programs and record summary data (counts of children identified, by handicap and year of age) for their districts. A matrix such as the one proposed to record waiting list data could be used to record incidence counts. This data could be forwarded to the state level each year for aggregation with other districts' data, and eventual inclusion in the model.

If data processing could be applied to information collection (as previously described), annual incidence counts for public school programs could be extracted from the rosters that would be cycled between Special Education and the districts. If, as a child is identified as handicapped and placed on a roster, the date of identification would be recorded on the roster, annual counts of children newly identified, by age and handicap, could easily be made by Special Education upon receipt of the rosters each year.

In addition to children newly diagnosed as handicapped each year, it is possible that school programs will acquire children who have been diagnosed or identified as handicapped previously by other school districts or other handicapped programs in the state. Rather than reporting these children again as newly diagnosed, which could distort the incidence picture in the state, these intra-state transfers should be reported separately. Because no mechanism exists at this point in time to monitor these transfers into public school programs, this would have to be developed by Special Education.

If summary data were to be collected manually at the district level, counts of intra-state transfers into a district could be requested from the Superintendents and Special Education Directors along with the other data elements that would be requested. As an example, the matrix form previously described for the summarization of incidence data could also be used to record the intra-state transfers. Each age/handicap cell on the matrix could be divided, with one half used to record the number of children newly diagnosed within the district, and the other half used to record the number of children, previously diagnosed, who transfer into the district during the year.

If an automated information system were to be developed, data on intra-state transfers could easily be collected using the rosters of handicapped children. If all handicapped children identified within the district each year were listed on a roster, a code could be used to indicate which children came into the district from other districts or programs where they had already been diagnosed as handicapped. The number of intra-state transfers, by age and handicap, could then be tabulated at the state level.

Attrition

There is currently no data at the state level on attrition from public school special education programs. Here again, District Superintendents and

Special Education Directors could be asked to monitor attrition at the district level.

If summary data were to be collected manually at the district level, counts of attritions, by reasons, could be recorded on a matrix form similar to the ones previously described for the other data elements. Each age/handicap cell on the matrix could be segmented into subsections for the basic reasons for attrition, e.g., return to regular education, mortality, or other reasons. (Any specific reasons for attrition in which the state or district administrators were interested could, of course, be added.) This chart could then be submitted at the end of the year, along with the chart on newly diagnosed and intra-state transfers.

If an automated information system were to be developed, data on attritions could also be collected using rosters, as described in previous paragraphs. If all handicapped children within a district (enrolled, and waiting to be enrolled) were listed on a roster, the attritions from the programs in the district could be indicated on the roster as they occur during the year. Codes to indicate specific reasons for attrition could be developed. The number of attritions, by age, handicap, and reason, could be tabulated at the state level upon receipt of the roster.

General Population Projections

Projections of the general child population in the state of Missouri may be requested from the School Finance and Statistics Section within the Division of Administration. Projections of the total school enrollment by grade are currently being done, and grades can be converted to years of age. In addition, the birth rate for the state is published, and this can also be used as a base for projections.

Trends in Enrollment

Data to plot levels of enrollment and identify trends in enrollment, by educational level and handicapping conditions, is currently available within the Special Education Section. This data is contained on Application for Class Approval and Application for Approval of Reimbursement forms now received by Special Education, and could be tabulated for inclusion in the model. In order to analyze the "mix" of various types of programs, however it would be necessary to modify these enrollment reporting forms to include some indication of the program types in which the children are enrolled.

Personnel/Pupil Contact Ratios

The approvable class size for each type of handicap served in public school programs is shown under the heading "Legal Provisions and Regulations" on each Application for Class Approval form. The Special Education Director stated that these recommended personnel/pupil contact ratios are reviewed periodically by an advisory group consisting of state university faculty, specialists in education of the handicapped, etc. Special Education also publishes "Regulations Governing the Securing of State Aid for Special Classes for Exceptional Children," and these contain recommended class size for each handicap.

Personnel

Data on numbers and types of special education personnel are currently available within the Special Education Section. Each June, local schools submit an Estimated Professional Staff form, listing professionals (other than teachers and speech clinicians) proposed for employment the following year. By April, an Actual Professional Staff form is submitted, listing professionals actually employed during the year. (A copy of this form is contained in Section X, page D25-22 of this report.) Actual counts of teachers and clinicians employed each year can be made based upon the Application for Class Approval forms and Application for Approval of Reimbursement forms which are received for each class and homebound program conducted.

In addition, the Data Processing Section has implemented an automated personnel data system for the entire Department of Education. This system contains certification, assignment, and other relevant data on special education personnel, and could be another source for this data in the future. Because this system is new, it is not now being relied upon completely for special education personnel data, but will be relied upon more in the future.

The Teacher Education and Certification Section could be another source of data on special education personnel, in that records of all certified personnel in the state are maintained here. This, too, is an automated system.

Data from Other State Schools for Handicapped Children

State Schools for Retarded Children. The State Schools for Retarded Children handle the vast majority (currently over 80%) of trainable mentally handicapped children served in the state. The Director of the State Schools reports that much of the data on these children that would be needed for inclusion in the projection model is available at the schools, and could be retrieved from them.

Enrollment data is currently available by single year of age, as is data on children waiting to be enrolled at the schools. It is anticipated that the waiting lists for the schools will be very small.

No incidence studies have been made by the State Schools, and counts of children identified as handicapped each year would reflect children who apply to, and/or are admitted to, the schools each year. Within this number, the schools could also indicate the number of children who transfer in from other special education programs in other school districts where they had previously been diagnosed as handicapped.

Data on attrition has not been reported in the past, but schools know where children go upon termination, and so counts of attrition, by reason, could be made in the future. Reasons for attrition would include return to regular education, mortality, or other reasons.

Data to plot enrollment trends for State Schools would be available, as would data on the numbers and kinds of personnel employed at the schools, and the personnel/pupil contact ratios that are used in the schools.

The Special Education Section could work with the State Schools Section in the development of forms and instructions that could be used in the collection and aggregation of this data. Forms similar to the matrices described for public school data collection would probably be suitable. It is also possible that the automated roster system, described as an alternative for public school data collection, could be extended to include these state schools for retarded, in that they are numerous enough to justify inclusion in an automated system.

State Residential Schools. Both the School for the Blind and the School for the Deaf are administered, at the state level, by the Division of Special Services. Because these schools are in the same division as Special Education, there is no problem with communication, exchange of information, etc.

While there is little information at the state level on these two schools, the superintendents of the schools reported that they would be willing to monitor the data elements needed for model application, and provide this data to Special Education.

For both schools, enrollment data by handicap and year of age would be available. For the most part, there will be no waiting list data, although the School for the Deaf reported that some applications of pre-school children are accumulated prior to their becoming eligible for admission.

The number of children newly diagnosed as handicapped each year would simply be a reflection of the number of children newly identified and/or admitted to the schools. Of these children, the number who transfer to the schools from other special education programs in other school districts could easily be reported.

Because the residential schools are in good position to follow up on the pupils who leave the schools, attrition data, by reason for attrition, should not be difficult to maintain.

Data to plot enrollment trends would be available, as would data on numbers and kinds of personnel employed by the schools, and the personnel/pupil contact ratios that are used by the schools.

The special education section could provide each school with forms and instructions to be used in providing data for inclusion in the model. Forms similar to the matrices described for public school data collection would probably be suitable.

State Schools and Hospitals. The Department of Public Health and Welfare, Division of Mental Health, administers the Marshall State School and Hospital and the St. Louis State School and Hospital, both serving mentally retarded children. The Division's Assistant Administrative Supervisor for Education stated that while little detailed data on pupils is available at the state level, the data elements needed for the model would be available at the schools, and the schools could be asked to monitor them during the year.

Both schools could be asked to monitor, by handicap type and year of age, the number enrolled in special education, number diagnosed and waiting to be enrolled in special education, number newly identified as handicapped each year, number transferred into school from other special education program in other district in state, and number leaving the school program, by reason for attrition (return to regular education, mortality, or other reasons). Enrollment trends could be plotted, based upon the enrollment data maintained by the schools. In addition, information on personnel/pupil contact ratios, and numbers and kinds of personnel employed, could also be requested from each of the schools.

Regional Diagnostic Clinics. The Division of Mental Health also administers Regional Diagnostic Clinics. These clinics provide diagnosis and short-term special education for mentally retarded children, prior to sending them on to longer-term residential and institutional schools, or returning them home if no further special education is indicated. Because of the short-term, high turnover nature of the clinics, it would probably not be necessary to include their service data in the data base for the projection model. Because these children "flow through" the clinics, to be placed, ultimately, in other schools, the data on these children could be monitored at these schools.

Even though the data from the clinics would not be included in the projection model itself, the need for staff to maintain the clinics should not be overlooked when projecting the total state manpower needs. Such factors as trends in annual service levels, and maximum service levels that can be maintained by the clinics, could be compared to the projected handicapped child population, to provide an indication of future manpower needs for the clinics.

State Mental Hospitals. The Division of Mental Health administers special education programs in five mental institutions. These programs serve emotionally disturbed children. While there is little data at the state level on these programs, the data elements needed for model application would be available at each of the institutions. The institutions could be asked to monitor these elements during the year, and forward the data to the Division. The data elements would be the same as those described above for the State Schools and Hospitals.

For the collection of all data on Division of Mental Health programs, forms and instructions could be provided by the Special Education Section. Again, matrices as previously described for public school data collection would probably be suitable.

Mental Health Centers. In addition to the State Mental Hospitals, three Mental Health Centers provide short-term, intensive treatment for emotionally disturbed children. These centers serve emotionally disturbed children in much the same manner as the diagnostic clinics serve mentally retarded. Here again, data from these centers would probably not be included in the projection model data base, if, in fact, the children served would ultimately be referred to, and reported by, other schools. In general, these centers should be handled in the same manner as the diagnostic clinics.

Data From Private Schools

There is no data at the state level on special education programs conducted in non-public schools. The Department of Education has surveyed non-public schools for counts of economically and educationally deprived children, but there is no data on special educational needs of these children.

Because there exists neither the legal requirement nor the mechanism to collect data on private school special education in the state, there appears to be a low probability, at this point in time, that this data can be developed or included in the projection model.

V. PROCESSING POTENTIAL

Hardware

The Department of Education currently receives data processing support from its Data Processing Section within the Division of Special Services. This facility houses an IBM 360-30. For model application a 32K word capacity is required. Some programming is being done in FORTRAN, and so, if storage capacity is adequate, no problem in using the model would be anticipated.

Personnel

The Data Processing Section employs programmer-analysts, programmers, computer operators, and keypunch personnel, all of whom are available to provide systems support to the various sections of the Department, including Special Education. System personnel qualified to run the model, and interpret the results of the model, would be available to Special Education.

Acceptance of Model Concept

The Data Processing Section is not currently providing any service specifically for Special Education, in that pupil data from special education programs is being handled manually. Data Processing is, however, handling much data on teachers in Missouri, and is providing Special Education with printouts of certified special education teachers.

While Special Education has not relied heavily upon data processing support in the past, the general attitude toward the application of systems and data processing tools appears to be positive. The director and staff of the Special Education Section expressed interest in the capability of the model, and were cooperative in providing information on their operations that would relate to the model. The Director and staff of the State Schools for Retarded Children Section were also quite willing to discuss the relationship between their operations and the model, and expressed interest in utilizing the model as well. In addition, the Assistant Commissioner of the Division of Special Services was especially cooperative in offering his time to examine the model and discuss the implications it could have for his Division. Acceptance of the concept of the model was apparently quite good throughout the organization.

VI. ADDITIONAL FACTORS

The organization of special education services in Missouri is such that the bulk of all programs for handicapped children falls within the Department of Education. Public school special education, residential schools for the blind and the deaf, and state schools for retarded children are all administered by the Department. It appears, therefore, that for purposes of model implementation and operation, good cooperation and communication among these programs will be possible at the state level. Further, the balance of the state's special education programs are administered by the Division of Mental Health, and a single liaison with the Assistant Administrative Supervisor for Education will probably provide all needed data on these institutional programs. Good cooperation on the part of the Division of Mental Health is anticipated.

Missouri is one of the states involved in the Midwestern States Educational Information Project (MSEIP). This project has attempted to coordinate state education agencies in 13 midwestern states in the identification of educational information requirements and in the development of information systems to satisfy those requirements. The complete or "ideal" data base that has been developed by the MSEIP contains data elements that would satisfy most projection model input needs.

Because the MSEIP is not yet being implemented in any of the states involved in the project, it cannot be relied upon at this time to provide data needed for projection model utilization. Special Education should coordinate any future systems development effort with the MSEIP in order to avert any possible duplication of effort in this area.

VII. RECOMMENDATIONS

For public school special education programs, data on enrollments, by age and handicapping condition, is reported to the Special Education Section each year. The Application for Class Approval forms do not break down the types of programs in which the children are enrolled, e.g., resource room, day special class, etc., and so if Special Education wished to analyze the "mix" of programs in greater detail, these forms would have to be modified to include some indication of program type.

While it is possible that the tabulation of enrollment data by handicap, year of age, and program type could be done manually (probably requiring additional clerical support on a part-time basis), the volume of forms and the number of children being reported would suggest the application of data processing. By keypunching the enrollment data received each year, counts of children, by age, handicap, district, school, or any other element of interest, could easily be obtained.

While enrollment data is received each year by Special Education, no other program data useful for the projection model is available at the state level. In order to obtain the data elements needed for projection model application, the cooperation of administrative personnel at the school district level would probably have to be enlisted. District Superintendents and Special Education Directors would be relied upon to monitor the public school programs in their districts, and provide the needed data to Special Education.

There are essentially two approaches that Special Education could consider for the collection and tabulation of data for the Manpower Requirements Projection Model. The first approach would involve the use of manually prepared forms, such as the matrix forms described in the Data Element Evaluation section of this report. Age and handicap data on children who were waiting to be enrolled in programs, newly diagnosed as handicapped, transferred into programs from other districts, or terminated from programs (by reason for attrition) could be recorded on matrix forms at the district level. These forms could be forwarded to the state level, along with enrollment data, where the data elements needed could be tabulated manually or by data processing.

The second alternative approach would involve the use of a roster for update of status of each handicapped child identified by the public schools. This approach, as described in the Data Element Evaluation section, would utilize automatic data processing, and would rely upon district and/or school special education personnel to update, each semester or each year, the status of each handicapped child listed on the roster. Codes could be used to indicate whether child is enrolled, waiting for enrollment, or terminated (by reason for attrition). Codes could also indicate whether a child was newly diagnosed as handicapped, or transferred into the district from another district in which he was diagnosed and/or served. When returned to the state level, the rosters could be processed, the needed data tabulated, and new updated rosters returned to the district or school level to begin the next update cycle. There could, of course, be other variations of systems, similar to the one described here, which could also provide the basic data flow needed to support the model.

Special Education should first consider the use of the automated roster system, or a similar update system, for the collection and tabulation of data. Such a system could provide more data, as well as flexibility in the way the data could be analyzed. It could also reduce the collection of all data elements described here to a single form for each reporting unit (e.g., district or school).

If resources are not available for the development of a fully-automated reporting system, consideration should then be given to the application of data processing to the tabulation of data collected through manually prepared forms, as previously described. The anticipated volume of data from all school districts in the state would justify the use of automatic data processing, in terms of staff time and effort, accuracy, and flexibility of analysis of the data.

For the collection of needed data on the State Schools for Retarded Children, Special Education could work with state-level administrators of these schools in the development of the necessary forms and procedures. Matrix forms, similar to those described for public school data collection, could probably be used by each school to report the data elements to the state level. There are more than 60 of these schools in operation, which again points to the value of automatic data processing for the tabulation of this data. If, in fact, a recycling roster system, or similar system, is considered by Special Education, it could be extended to include the state schools for the retarded. Such a system could be used by the state schools in much the same manner as it could be used by the local public schools.

For the collection of data on the School for the Blind and the School for the Deaf, each of these schools could respond to Special Education's data requests on a direct basis. To facilitate this response, Special Education could provide each school with the necessary forms and instructions covering the data elements needed for the Manpower Requirements Projection Model.

For the collection of data on the State Schools and Hospitals and the State Mental Hospitals serving handicapped children, Special Education could establish a liaison with the Division of Mental Health, probably the Assistant Administrative Supervisor for Education. This Supervisor could coordinate the collection of the needed data at the state level. Here again, Special Education could provide the forms and instructions to facilitate the collection of this data.

As described in the Data Element Evaluation section, Special Education would be able to develop the other elements of data needed to support the projection model, including data on enrollment trends, personnel/pupil contact ratios, numbers and kinds of special education personnel, and projections of the general child population in the state.

In the absence of both the legal requirement and the mechanism to collect data from the non-public schools in the state, it is unlikely that Special Education would be able to include private school data in the projection model data base.

VIII. RESOURCE REQUIREMENTS

Manpower

If manually prepared forms, as described in previous sections of this report, would be utilized for the collection of the data elements needed for model application, time would be required on the part of a qualified systems analyst working within the Special Education Section. Tasks would include design of the formats; development of instructions and procedures for the use of the forms in the field, as well as for the handling of the forms at the state level; determination of information flow and interface between the Special Education Section and the data processing facility at the state level; some support and "trouble shooting" at the district level, and with the other state level agencies, in order to facilitate the use of the new report forms. A minimum of $1\frac{1}{2}$ man-months of systems analysis, over a period of four years, would probably be required to implement this new reporting system.

If automatic data processing would be used for data tabulation, on-going maintenance of the information system would probably require 1 man-week per year following model implementation. Manual tabulation of the data would require the addition of a minimum 3 man-months of clerical time. (Because of required level of clerical effort and limited flexibility of data analysis, manual tabulation has not been recommended.)

If an automated information system, similar to the recycling roster system described in the report, were to be utilized, time on the part of a qualified systems analyst would be required for system design and development, programming and debugging, procedure and instruction writing, coordination of agencies and personnel for system implementation, and some support and "trouble shooting" at data input sources. A minimum of 3 man-months of systems analysis, over a period of one year, would probably be required for system implementation, and an additional 2 man-weeks per year would be required for on-going maintenance of the information system.

Manpower requirements are summarized as follows:

a. For the automated roster system, 3 man-months of special education staff effort, 1 man-week of forms design, 3 man-months of system analysis, and $1\frac{1}{2}$ man-months of programming time. Maintenance of the system is estimated to require less than 2 man-months of combined effort annually.

b. For the manual tabulation system, 2 man-months of special education staff effort, 2 man-weeks of forms design work, $1\frac{1}{2}$ man-months of systems analyst time, and 3 man-months of clerical effort. To automate the tabulation system would require an additional man-month of programmer time. Maintenance of the system would require 5 man-weeks of special education staff/systems analyst time and 3 man-months of clerical effort.

IX. PERSONS INTERVIEWED

Mr. Warren M. Black	Assistant Commissioner, Division of Special Services, Department of Education
Mr. Donald M. Cox	Director, Special Education, Division of Special Services, Department of Education
Mr. John Patterson	Assistant Director, Special Education Division of Special Services, Department of Education
Mr. B.W. Sheperd	Director, State Schools for Retarded Children, Division of Administration, Department of Education
Mr. Dewey Bilyeu	State Supervisor, State Schools for Retarded Children, Division of Administration, Department of Education
Mr. Marvin Walker	Assistant Administrative Supervisor for Education, Division of Mental Health, Department of Public Health and Welfare
Mr. Gene Dabbs	Director, Data Processing, Division of Special Services, Department of Education
Mr. Donald W. Johnson	Superintendent, School for the Blind (St. Louis), Division of Special Services, Department of Education
Mr. Lloyd A. Harrison	Superintendent, School for the Deaf (Fulton), Division of Special Services, Department of Education
Mr. Davis	Principal, School for the Deaf (Fulton), Division of Special Services, Department of Education

X. CURRENT REPORT FORMATS

Example of Application for Class Approval

- Blind or Partially Seeing

Application for Home Teaching

Application for Approval of Reimbursements (for) Home Instruction

Actual Professional Staff

STATE DEPARTMENT OF EDUCATION
Special Education Section
Jefferson Building
Jefferson City, Missouri 65101

Application for Class Approval
BLIND OR PARTIALLY SEEING

(School District) ____________ (Address) ____________ (County) ____________

(Name of Teacher) ____________ (Name of School) ____________ (Date) ____________ 19 ____

(Home Address) ____________

LEGAL PROVISIONS AND REGULATIONS

The approvable class size, as determined by the State Department of Education in accordance with the law, is 6 to 8 for the blind, and 6 to 12 for the partially seeing. Classes under 6 may be approved only after investigation by the State Department of Education. Enrollment as of October 15 will be used for apportionment.

INSTRUCTIONS:

1. List names of all pupils enrolled. Only those pupils diagnosed as blind or partially seeing shall be enrolled.
2. List the last name of the pupils first, and in alphabetical order.
3. In listing the names of the partially seeing pupils, indicate the amount of vision of each child.

Name of Pupil	Sex	Age	Grade	Blind	Partially Seeing	
					Right	Left
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						

(REPRODUCED FROM STATE FORM)

Complete this form IN DUPLICATE. Send BOTH copies to the Section of Special Education, State Department of Education by October 15. An approved copy will be returned to you.

(Signature of Administrative Officer) ____________

D25-19

State of Missouri
DEPARTMENT OF EDUCATION
Special Education Section
Hubert Wheeler, Commissioner

APPLICATION FOR HOME TEACHING

Please fill in the information requested below and have the administrative officer of your school forward application **in duplicate** to the Director of Special Education, State Department of Education, Jefferson City, Missouri.

Date of Application ____________ Name of Child ______________________________ Age ______
Name of Parent ______________________________
Address ____ Date of Birth ______________
Name of school district sponsoring home tutoring ___________________________ Grade ______
Address of School ____ County ______________
Name of Administrative Officer ____

(This space is to be used by the psychological examiner)

Name of test(s) ______________ Test results ______________________
______________ ______________________
______________ I.Q. ______________________
Date ______ Signature of Examiner ______________________

(REPRODUCED FROM STATE FORM)

(This space is to be used by the teacher)

Teaching by telephonic communication? Yes _____ No _____
Teaching by home teacher? Yes _____ No _____ (If **yes**, complete the remainder of this section.)

______________________________ ______________________________
Name of Teacher Employed *Address*

______________________________ ______________________________
Type of certificate now held *Expiration date of certificate*

(This space is to be used by attending physician)

I recommend that this child have school work at home (or hospital).

Diagnosis: ____
Reason for homebound condition: ______________________________
Approximate length of time child will be homebound: ______________
If child has a cardiac difficulty, how many minutes per day should he receive instruction? ______________

Recommendations: ____

Date ______________ Signature of Physician ______________________

D25-20

APPLICATION FOR APPROVAL OF REIMBURSEMENT (FOR) HOME INSTRUCTION (Page 2)

Name of Pupil	No. of Weeks Taught	Sex	Age	Grade	Orthopedically Handicapped (Diagnosis)	Hard of Hearing (Loss in decibels)	Partially Seeing (Amount of Vision) Left Right	Mentally Retarded	Name of Teacher
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

(REPRODUCED FROM STATE FORM)

The Administrative Officer will fill in this form and return with Form FC-D/27 – SUPPLEMENTAL APPLICATION FOR STATE SCHOOL MONEY FOR EXCEPTIONAL PUPILS.

____
(Signature of Administrative Officer)

APPLICATION FOR APPROVAL OF APPORTIONMENT

ACTUAL PROFESSIONAL STAFF

(OTHER THAN SPECIAL EDUCATION TEACHERS AND SPEECH CLINICIANS)

Due by April 1

______________________ (SCHOOL DISTRICT)
______________________ (ADDRESS)
______________________ (COUNTY)

______________________ (ADMINISTRATIVE OFFICER)
______________________ (NAME OF SCHOOL)
______________________ 19 ___ (DATE)

PROFESSIONAL PERSONNEL	AREA OF SPECIALITY	TIME WITH HANDICAPPED CHILDREN		CERTIFICATED OR LICENSED BY
		FULL	½	
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

(REPRODUCED FROM STATE FORM)

I certify that the above professional workers have devoted full-time or half-time to the activity listed above in accordance with Senate Bill #15 and standard regulations as adopted by the State Board of Education.

D25-22

______________________ (SIGNATURE OF ADMINISTRATION OFFICER)

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
MISSOURI

DATA ELEMENTS			PUBLIC SCHOOL PROGRAM			STATE SCHOOLS FOR RETARDED			STATE RESIDENTIAL SCHOOLS			DIVISION OF MENTAL HEALTH PROGRAMS		
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Available on current forms	Tabulation by ADP proposed. Alternative automated system proposed could also provide data	Application for class approval, and approval of reimbursement forms	Not now available at state level. Does exist at school level	Could be requested from each school. Could develop collection system similar to proposed public school system	Individual state schools for retarded	Not now available at state level. Does exist at school level	Data could be forwarded direct to Special Education as needed. Schools could begin to monitor these elements during year	Individual residential schools	Not now available at state level. Does exist at school level.	Could be requested from each hospital school program. Programs could be asked to monitor these elements during year	Individual hospital school programs
		HANDICAPPING CONDITION												
		EDUCATION PROGRAM	By class or homebound only											
	ON WAITING LIST	AGE	Not now available	Proposed manual or automated system	Probably collected at district level by district administrators	Not now available	Schools could be asked to monitor these elements during year		Not now available			Not now available		
		HANDICAPPING CONDITION												
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not now available			Not now available								
		HANDICAPPING CONDITION												
	INTRA-STATE TRANSFERS	AGE	Not now available			Not now available								
		HANDICAPPING CONDITION												
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Not now available			Not now available								
		HANDICAPPING CONDITION												
		REASON												
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Basic data now exists	Compilation of data required	School finance and statistics section									
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Basic data now exists on current forms	Compilation of data required	Current enrollment forms	Basic data exists at school level	Could be plotted at state level for all schools	Individual state schools	Basic data exists at each school	Could be plotted at school level	Individual schools	Basic data exists for each program	Could be plotted at state level for all programs	Individual hospital schools
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Currently available		Regulations published by special education section, estimated and actual prof. staff forms, current enrollment forms	Currently available		Personnel records at state level		Could be forwarded to Special Education		Currently available		Personnel records at state level
		EDUCATION PROGRAM												
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE.														

MONTANA STATE ANALYSIS REPORT

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IX. PERSONS INTERVIEWED D26-16

The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

MONTANA STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of this Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Montana, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

State special education personnel estimate that only about 15 percent of the handicapped child population in Montana are presently being served. Although the service is being expanded there is a great shortage of qualified special education personnel.

A special education information flow does exist from the local level to the state level that can provide a good basis for the development of the data elements required for application of the Manpower Requirements Projection Model. However, because the known manpower shortage so far exceeds any near-future resolution, the use of the model to project manpower requirements would probably not be of any analytical value at this time.

The need for more information and improved methods for obtaining and utilizing data will be required as special education programs expand and the number served increases. Montana Special Education has available for its use adequate computer hardware for the automated data processing of its information requirements, and should investigate the possibility of automating its data collection and processing procedures.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The relationship of the various agencies that participate in the education of handicapped children in Montana is informally presented in Figure 1. This diagram shows only those agencies which have some responsibility for handicapped child education and is not intended to include all of the many other functions which each agency performs.

The State Department of Education is responsible for all operations of the state's elementary and secondary public schools. Within the state hierarchy, its chief representative is the Superintendent of Public Instruction.

Of the 564 elementary school districts and 167 secondary school districts, only 56 had one or more special classes in 1968-69, and 70 have one or more special classes in 1969-70.

The Department of Special Education is a part of the Department of Education, and is responsible for:

- Approval of district requests for special education programs
- Approval of district requests for hiring of teachers who are not fully endorsed in special education

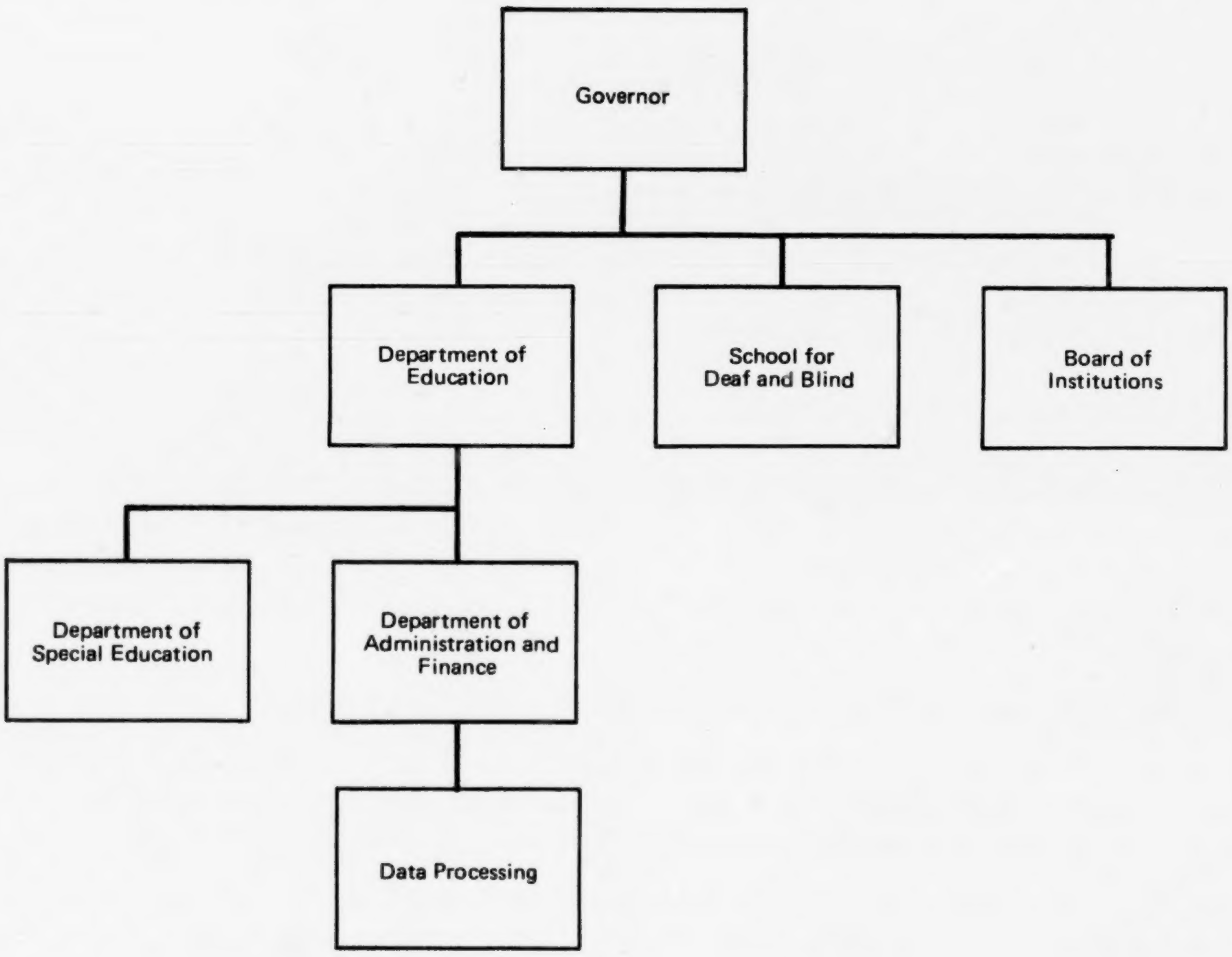

Governor
Department of Education
School for Deaf and Blind
Board of Institutions
Department of Special Education
Department of Administration and Finance
Data Processing

FIGURE 1. RESPONSIBILITY FOR EDUCATION OF HANDICAPPED CHILDREN IN MONTANA

- Maintenance of records of requests and classes
- Distribution of large-print and braille books and equipment for hard-of-hearing
- Consulting services for institutions, departments, ESEA Titles I and III, and schools
- Guidelines for class personnel and operation
- Administration of teacher incentive programs (Title VI and PL 85-926)

The Department of Special Education has no responsibility for operations or guidelines for state schools and institutions.

The state Schools for Deaf and Blind (one location for each handicap) reports directly to the governor. The Board of Institutions operates two resident schools for the mentally retarded.

IV. DATA ELEMENT EVALUATION

Some specific data elements are necessary to the use of the Manpower Requirements Projection Model. The information which these data elements provide may also be very useful to the Department of Special Education for other operational analyses. Those data elements and their potential sources are discussed in the following paragraphs.

Number of Children Identified as Needing Special Education

There are two categories of information pertinent to the identified handicapped child population; those enrolled in special education programs and those diagnosed as needing special education services and waiting to be enrolled.

Enrolled. Enrollment data elements required for model application include summaries by single year of age, handicapping condition, and special education program category (residential special class, full time special class in a regular school, itinerant, etc.). A two-part form, F601-411.300, is the only form regularly used for reporting special education data at the district level. This form is used to request approval of a special education program in a variety of circumstances:

a. Prior approval, submitted at any time between January 1 and about June 15, for a class to start in September, an approval which must be granted by the fourth Monday in June

b. Current approval, submitted in September or early October, for a class not previously approved (or approved after the fourth Monday in June)

c. Revised approval, submitted in September or early October, for a previously approved class, identifying "last minute" changes and revisions

d. Continued approval, submitted in September or early October, for a class that had been approved for the previous year.

In addition, a copy of the form is used to notify districts of approvals granted, and supplementary copies notify the state of unanticipated additions during the year.

The form is signed by the district superintendent (or county superintendent if the district position is unfilled) but is in fact filled in by the appropriate teacher.

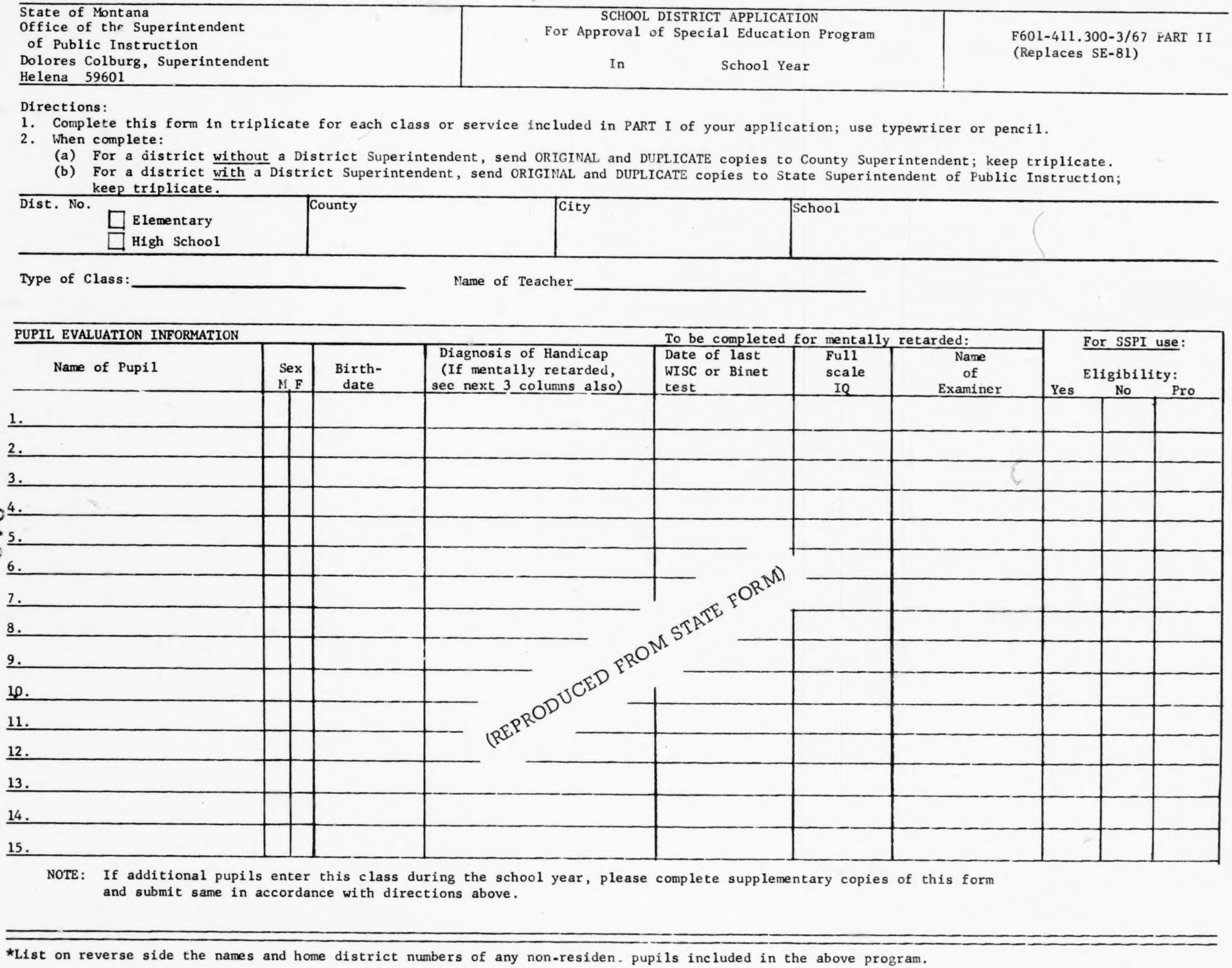
Part II of the form shown in Figure 2 provides for the recording of pupils by individual name, birthdate and handicapping condition, along with other diagnostic data. The numbers of pupils are not now summarized at the state level either by age or by handicapping condition; the count of classes and pupils is small enough, however, that this can be done manually. In the 1969-70 school year, the entire state was providing services for about 2,500 pupils in under 200 classes. To facilitate the summary operations, it would be useful and more efficient, though not imperative, to record "age" in addition to or instead of "birthdate."

No provision is made for indicating the special education program category. However this information may possibly be deduced by a knowledge at state level of the programs conducted in each school. Since the number of classes is not too large,this approach seems feasible.

The enrollment data should not be difficult to obtain from the state operated schools because it is very probably already on hand. It could be reported to the Department of Special Education through the appropriate state agency, or directly, if communication channels permit. For convenience the Form F601-411.300 could be used, or the data could be transmitted informally via phone or letter.

Information from private schools could be obtained voluntarily, using the same procedure. However, the amount of private school special education in Montana may not warrant an appreciable effort to collect data from these sources.

Waiting List. The regulations pertaining to the education of handicapped children in Montana mandate the conditions under which special education classes will be initiated. This means that when a child has been identified as needing special education services, the community is responsible for providing these services. With a shortage of funds, qualified personnel, and facilities, many communities sidestep the regulations by not "identifying" a handicapped child. Diagnosis frequently takes place only when the services are available for educat-



State of Montana
Office of the Superintendent
of Public Instruction
Dolores Colburg, Superintendent
Helena 59601

SCHOOL DISTRICT APPLICATION
For Approval of Special Education Program
In School Year

F601-411.300-3/67 PART II
(Replaces SE-81)

Directions:
1. Complete this form in triplicate for each class or service included in PART I of your application; use typewriter or pencil.
2. When complete:
   - (a) For a district without a District Superintendent, send ORIGINAL and DUPLICATE copies to County Superintendent; keep triplicate.
   - (b) For a district with a District Superintendent, send ORIGINAL and DUPLICATE copies to State Superintendent of Public Instruction; keep triplicate.

Dist. No. ☐ Elementary ☐ High School	County	City	School

Type of Class: ______________________ Name of Teacher ______________________

PUPIL EVALUATION INFORMATION

(REPRODUCED FROM STATE FORM)

Name of Pupil	Sex		Birth-date	Diagnosis of Handicap (If mentally retarded, see next 3 columns also)	To be completed for mentally retarded:			For SSPI use:		
								Eligibility:		
	M	F			Date of last WISC or Binet test	Full scale IQ	Name of Examiner	Yes	No	Pro
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										
11.										
12.										
13.										
14.										
15.										

NOTE: If additional pupils enter this class during the school year, please complete supplementary copies of this form and submit same in accordance with directions above.

*List on reverse side the names and home district numbers of any non-residen. pupils included in the above program.

FIGURE 2. PART II, SCHOOL DISTRICT APPLICATION

ing the child. As a result of this dilemma, there is no formal waiting list established, and the unserved handicapped child population remains unidentified.

The special education consultants use national prevalence figures for estimating the unserved child population. Those rates are applied to the total child population, and the difference between these figures and the handicapped child enrollment represents Montana's estimate of its unserved child population.

Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

Number of Children Moving Into/Out of Identified Handicapped Child Population

The movement of children within the handicapped child population needs to be traced to determine the effects of annual incidence, transfer, and attrition on the service required. Currently no data is collected or accumulated which will provide the necessary information.

Newly Diagnosed. The purpose of obtaining information pertaining to children newly diagnosed in a year is to develop some information on the annual incidence rates. Where diagnosis and identification are limited to capability to serve, a count of new enrollments in special education programs is the equivalent to a count of the newly diagnosed. However, this is a minimal condition and provision should be made for collecting newly diagnosed data pending the time when diagnosis is less restricted by service capability, funds, or availability of qualified personnel. Since, by Montana legislation, the responsibility for the determination of children requiring special education is the responsibility of the state superintendent of public instruction, this is the logical place to accumulate data for the development of lists of newly diagnosed children and those waiting for special education service. The data can be aggregated at the Department of Special Education and recorded on a format similar to that shown in Figure 3.

Intrastate Transfers. Intrastate transfers of children receiving special education services should not be counted as an attrition from the handicapped category in which they were enrolled; they remain in the state's handicapped child population (and thus do not change the statewide total). Since it is unrealistic to require a school district to know whether a child who moves away remains in Montana, in order to be able to adjust the statewide attrition rates, these intrastate transfers should be accounted for an reported separately by their new school districts. This will prevent a transfer from one LEA being counted as a new enrollee in another LEA, thus also creating an error in annual incidence count. An analysis of transfers could also reveal the trend of movement according to the quality of special education services offered by various localities.

Report Date (fall of each year) LEA ___________

Handicap Condition	N.D. = newly diagnosed W.L.T. = waiting list total	Age					
		1	2	3	4	5	. . . Etc.
Emotionally Disturbed	N.D.						
	W.L.T.						
Educable Mentally Retarded	N.D.						
	W.L.T.						
Trainable Mentally Retarded	N.D.						
	W.L.T.						
Etc.							

FIGURE 3. NEWLY DIAGNOSED AND WAITING LIST REPORTING FORMAT

A minor modification to the existing reporting format could provide the state with the data indicating student enrollment status. This modification consists of the addition of a column, next to the name column, in which to add a code to indicate the student's enrollment status, i.e., (C) continued in program from the previous year, (T) intrastate transfer from another LEA, or (E) a new enrollee in the state's special education program.

The intrastate transfer data could be summarized by using a simple matrix form with the individual year of age in the horizontal rows and the handicapping conditions in the vertical columns.

Attritions. Attritions and intrastate transfers out of an LEA constitute the deductions from the handicap child population of an LEA. Attritions are currently examined but not tallied. The state staff makes a practice of investigating the circumstances of each attrition, through a telephone call or a visit.

The attrition data could also be summarized by using a matrix format, again with the individual year of age in the horizontal rows and the handicapping conditions in the vertical columns. A useful subset of the handicapping conditions would be subcolumns for cause of attrition, such as return to normal education procedures, moved out of state, death, or any causes which the state may desire in its analysis of attrition data.

General Child Population Projections

Yearly projections of future general child populations by single year of age are used in conjunction with incidence rates by the Manpower Requirements Projection Model to calculate the projected number of new entrants into the handicapped child population. The availability of those projections was not known to the Special Education staff and could not be traced during the interview period.

Enrollment Trends

The Manpower Requirements Projection Model has the capability of simulating manpower requirements based upon selected variations of input data. Two such data elements are education program mix trends and personnel/pupil contact ratios. A simulated change in the education program mix (for example, returning blind and deaf children to regular classes supplemented by resource room work instead of special classes) can be analyzed for its effect on manpower requirements. A proposed change in teaching technology that could affect the teacher/pupil contact ratio can be simulated to determine its effect on manpower requirements.

The scarcity of districts with special education programs and the paucity of programs in these districts is not conducive to the accumulation of meaningful historical data. As a result the experience of the Department of Special Education staff will have to be relied upon for enrollment trend data.

Personnel/Pupil Contact Ratios

Teacher/pupil ratios are controlled by the State Department of Education. The Department of Special Education "recommends" a class of 12 pupils per teacher, 3 under the legal maximum, and relatively few of the special classes exceed the recommended value. There is only one ratio for teachers, and it applies to all teachers for all age groups for all handicap types.

Number and Type of Special Educators Employed

The determination of special education manpower gap (the difference between projected requirements and present staff) will require the aggregation of data obtainable from Part I of Form F601-411.300 "School District Application," Figure 4. This report identifies teachers and therapists for various handicapping conditions and levels of classes being taught. A tally of the contents of the above mentioned form will provide the inventory of teachers by handicapping speciality.

V. PROCESSING POTENTIAL

Hardware

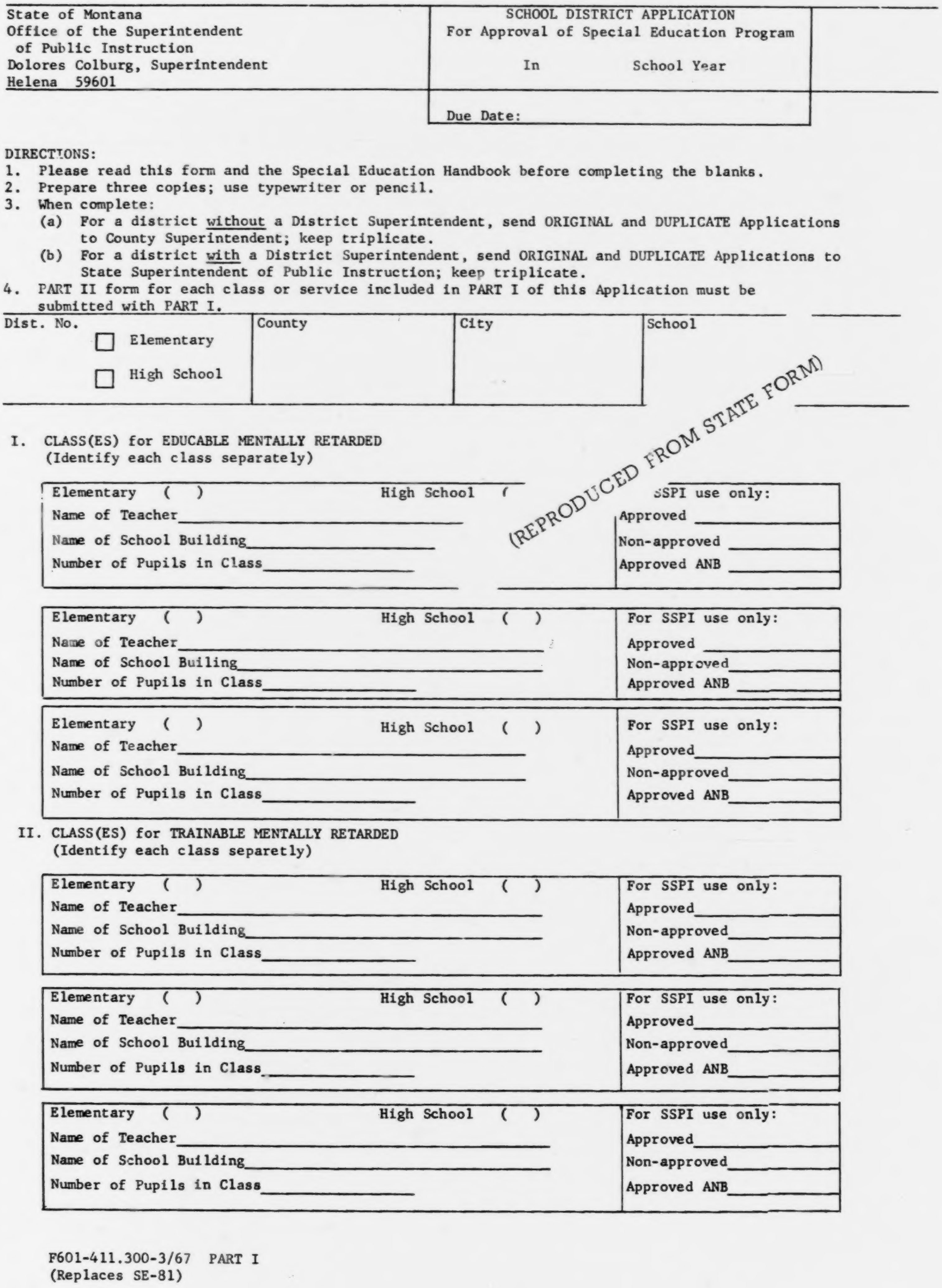
The Department of Education has for its exclusive use a 16K Honeywell 200 computer with a FORTRAN compiler, an IBM 402 tabulator, a sorter, and a collator. A keypunch operation is also included in the systems group. The computer configuration, because of the limited storage capacity, is not adequate for the use of the Manpower Requirements Projection Model,which requires a minimum 32K word storage capacity.

Personnel

The Department of Special Education staff consists of the Director and a full time assistant assigned to work on Title VI only. The current personnel are completely adequate for input preparation, operations of systems, and analysis and evaluation of output. There has been, however, virtually no interaction of the data processing group with most Education Department groups, and absolutely none with the Department of Special Education.

Acceptance of Model Concept

Notwithstanding a reasonably complete understanding of data processing in general and of what the Manpower Requirements Projection Model is and what it can provide them, the state staff was not particularly enthusiastic about its adoption. The primary reason for this is the inapplicability of manpower requirements projections to Montana's current status in special education. The known level of service is so incomplete in comparison to need, and the shortage of teachers is so extensive, that no "projection" is required to provide details.



State of Montana
Office of the Superintendent
of Public Instruction
Dolores Colburg, Superintendent
Helena 59601

SCHOOL DISTRICT APPLICATION
For Approval of Special Education Program
In School Year

Due Date:

DIRECTIONS:
1. Please read this form and the Special Education Handbook before completing the blanks.
2. Prepare three copies; use typewriter or pencil.
3. When complete:
   (a) For a district without a District Superintendent, send ORIGINAL and DUPLICATE Applications to County Superintendent; keep triplicate.
   (b) For a district with a District Superintendent, send ORIGINAL and DUPLICATE Applications to State Superintendent of Public Instruction; keep triplicate.
4. PART II form for each class or service included in PART I of this Application must be submitted with PART I.

Dist. No. ☐ Elementary ☐ High School	County	City	School

(REPRODUCED FROM STATE FORM)

I. CLASS(ES) for EDUCABLE MENTALLY RETARDED
(Identify each class separately)

Elementary ( ) High School (
Name of Teacher____________
Name of School Building____________
Number of Pupils in Class____________
SSPI use only:
Approved ______
Non-approved ______
Approved ANB ______

Elementary ( ) High School ( )
Name of Teacher____________
Name of School Builing____________
Number of Pupils in Class____________
For SSPI use only:
Approved ______
Non-approved______
Approved ANB ______

Elementary ( ) High School ( )
Name of Teacher____________
Name of School Building____________
Number of Pupils in Class____________
For SSPI use only:
Approved______
Non-approved______
Approved ANB______

II. CLASS(ES) for TRAINABLE MENTALLY RETARDED
(Identify each class separetly)

Elementary ( ) High School ( )
Name of Teacher____________
Name of School Building____________
Number of Pupils in Class____________
For SSPI use only:
Approved______
Non-approved______
Approved ANB______

Elementary ( ) High School ( )
Name of Teacher____________
Name of School Building____________
Number of Pupils in Class____________
For SSPI use only:
Approved______
Non-approved______
Approved ANB______

Elementary ( ) High School ( )
Name of Teacher____________
Name of School Building____________
Number of Pupils in Class____________
For SSPI use only:
Approved______
Non-approved______
Approved ANB______

F601-411.300-3/67 PART I
(Replaces SE-81)

FIGURE 4. PART I, SCHOOL DISTRICT APPLICATION

VI. ADDITIONAL FACTORS

Approximately 15% of the estimated number in need of special education services are currently receiving some services, based on the 1960 population and on Federally established prevalence rates. These rates do not adequately describe the Indian population of the seven reservations in the state.

Out of a total of 731 school districts in the state, only 70 have even one special education program. As low as this number is it represents an uncommonly large 25 percent increase over last year's number of districts with programs.

The statewide average population density is about five persons per square mile, with five school-age persons over four square miles. This virtually precludes special classes of at least 12 pupils at a given school in most non-city areas. With the largest city, Great Falls, having a population of only 80,000, most of Montana falls into the "non-city" category.

Because Montana is a remote state and because of the relatively large distances between population centers, there is little that can be done about attracting additional qualified personnel to the state education system, aside from raising salaries, and even that will be on a locality-by-locality basis.

There are no blind or deaf students in public special education classes, although a token number who attend regular classes receive the services of itinerant teachers (for lipreading or braille) on a more-or-less regular basis. State law does not now provide for services to deaf and blind (except in the state school which has a total current enrollment of 123), and the special education department felt the chance of their acquiring such provision is remote.

A token number of hard-of-hearing and partially sighted children are enrolled in cooperative or day special classes, but hard-of-hearing is not expected to become a major program. And finally, two state-wide classes for emotionally disturbed students were initiated in the 1969-70 year, but this also is not expected to become a major program.

VII. RECOMMENDATIONS

Special Education in Montana encounters many problems in its efforts to provide educational services to its handicapped child population. The wide dispersion of its sparse population over a large geographical area contribute to the difficulty of establishing concentrated special education programs. This, along with the state's remote location in relation to large population centers, adds to the difficulty of attracting qualified special education personnel to the state.

Because the known manpower shortage so far exceeds any near future resolution, the application of the Manpower Requirements Projection Model to prepare a forecast of manpower requirements would probably not be of any analytical value at this time. This does not, however, preclude the need for additional information that would assist in the administration of the state's special education programs. The procedures for providing this information, if developed now, would also provide the data elements necessary to the future application of the model.

The following recommendations would, upon implementation, provide for the information flow of data elements that would improve the quality and quantity of information available for special education program management and also provide the basic data necessary for the application of the Manpower Requirements Projection Model.

a. The data collection form F601-411.300, while it does not presently provide for the collection of all the data elements discussed in this report, does serve as a good basis for the moderate expansion to be recommended. It represents an information link between the classroom, the local school district, and the state Special Education Department. Recommendations pertinent to the use or modification of this form are:

1. In Part II of the form

   - Add a column for pupil age. This will facilitate the summarization at state level of handicapped children by single year of age by making the age determination automatic rather than calculating it from birthdate.
   - Add a line to the header data, perhaps next to the "Name of Teacher," for entering the special education program category (residential school, special day class, special education class in regular school, itinerant, etc.). This will again make it easier to summarize data by program category at the state level.
   - Add a column for coding student enrollment status as suggested in Section IV. This will provide data on new enrollments and intrastate transfers.

2. Develop a procedure for obtaining similar information from state schools and institutions, perhaps using Form 601-411.300 or some similar format.

3. Summarize the data obtained from these forms to obtain

   - Total enrollment by handicap condition, by single year of age and special education program category.
   - New enrollment totals.
   - Types of special education personnel employed by area of specialization and education level taught.

b. Summarize attrition data by handicapping condition, single year of age and cause.

c. Although no forward projections of the general child population are presently being prepared, it is possible that existing statistics within the state agencies may be used as the basis for the preparation of such projections. Such projections, should they be prepared, would be useful to the Department of Public Instruction also in the planning of future general education requirements.

d. The determination of the unserved child population is dependent upon the application of current prevalence rates. Although the use of unvalidated prevalence rates (especially those of national or obsolete origin) is a convenient means of "guesstimating" the theoretical service requirements, even the "ball park" accuracy is questionable. The prevalence rates currently used in Montana should be reviewed in the light of current knowledge, and procedures should be initiated for validating prevalence rates.

   The establishment of waiting list information is necessary to the future determination of the level of participation, that is, the amount of service being supplied to the number of children identified as needing it. Obviously, if children are diagnosed and identified as handicapped children only when the required service is available, there is no backlog, no waiting list, and a lower incentive for planning and funding the expansion necessary to service those children awaiting diagnosis.

The present interpretation of the education regulations pertaining to education of handicapped children is that it is mandated that a child identified as handicapped must be provided with special education services. This policy tends to restrict diagnosis beyond the capability to enroll. It is recommended that a procedure be adopted which will permit the reporting of the results of a diagnosis effort without committing the LEA to providing special education services.

e. The Department of Special Education has not used automated data processing (ADP) techniques for the collection, storage, or reporting of its data, although a facility for providing such service is available. Although the volume of data currently processed by the Special Education staff can be manually aggregated, this process will become increasingly difficult as the state's special education programs expand and the number of data elements increase. Conversion to an ADP system for processing the data is strongly recommended.

VIII. RESOURCE REQUIREMENTS—MANPOWER

Although application of the Manpower Requirements Projection Model has not been recommended in the immediate future, it has been suggested that special education information be automated. The manpower to design an information flow, evaluate data elements, determine data sources, design or modify reporting forms, prepare input data, write computer programs, and design output formats is not available in the present Special Education staff. Such assistance would have to be provided by an outside source, perhaps the staff of the computer center. It is estimated that the manpower required to implement the system would be 1 man-month of special education staff time, $1\frac{1}{2}$ man-months of systems analyst effort, $\frac{1}{2}$ man-month for programming, and $\frac{1}{2}$ man-month of clerical effort over a 12 to 18 month time period.

Maintenance of the system (coordination of inputs, quality control, improvements, preparation of special reports, etc.) will probably require about $1\frac{1}{2}$ man-months per year of combined effort.

Application of the model, once the data elements are available, will require very little manpower or machine time.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Mr. Ted Jungreis, during the week of September 8, 1969 were:

Roger Bauer	Director, Department of Special Education
Ellen Peterson	Supervisor for Title VI Funds, Department of Special Education

TABLE 1

SUMMARY OF DATA DEVELOPMENT STATUS

MONTANA

DATA ELEMENTS			PUBLIC SCHOOL SYSTEM: CURRENT STATUS	PUBLIC SCHOOL SYSTEM: METHOD OF DEVELOPMENT	PUBLIC SCHOOL SYSTEM: SOURCE OF DATA	STATE SCHOOLS AND INSTITUTIONS: CURRENT STATUS	STATE SCHOOLS AND INSTITUTIONS: METHOD OF DEVELOPMENT	STATE SCHOOLS AND INSTITUTIONS: SOURCE OF DATA	PRIVATE SCHOOL DATA
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Available	Aggregate at state level	Local districts on Form 601-411.300 Part II	Available	—	Report to Department of Special Education directly or through state agency	Available; submit to Department of Special Education on voluntary basis
		HANDICAPPING CONDITION	Available						
		EDUCATION PROGRAM	Available by interpretation						
	ON WAITING LIST	AGE	Not available	Record and aggregate data at State Department of Special Education	Department of Education	Available	—		
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available			Available	—		Availability unknown
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	AGE	Not available	Modify Form 601-411.300 Part II	Local districts on modification of Form 601-411.300 Part II	Not available	Record and report		
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Available	Aggregate data currently not tallied	State Department of Special Education	Available	—		
		HANDICAPPING CONDITION							
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Not available	Utilize existing statistics if available	Department of Education				
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Not available	Utilize Special Education staff experience	Department of Special Education				
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Available only one ratio (1/15) for all	—	Department of Special Education	Available	—	Report to Department of Special Education directly or through state agency	Available; submit to Department of Special Education on voluntary basis
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Basic data available	Aggregate teacher data from Form 601-411.300 Part I		Available	—		

NEBRASKA STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

NEBRASKA STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Nebraska and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

In Nebraska, public school special education is administered at the state level by the Office of Special Education within the Division of Instructional Services, State Department of Education. The Director of Special Education expressed interest in the capabilities of the projection model and willingness to develop as much of the data flow and data base as possible in support of the model. The Director was very cordial and cooperative in providing information on state program operations relevant to this study.

Special Education currently receives data on children enrolled in public school special education programs each year. Modifications to specific reporting formats would yield enrollment data in the form needed for model input. Other needed data elements, including waiting lists, annual incidence counts, and attrition counts, are not now available at the state level, but could also be obtained, in most cases, through modification and expansion of current report formats.

It appears that the data on handicapped children that could be collected by Special Education would be fairly representative of the state overall and would provide a sound basis for statewide projections.

Special Education currently maintains no data on schools for handicapped administered by other state agencies. No problem would be anticipated, however, in obtaining data from these schools on an annual basis. Residential schools are administered by the Department of Education's Division of Administrative Services; institutional schools are administered by the State Department of Public Institutions; and institutes for treatment of handicapped children are administered by the University of Nebraska Medical Center, under the State Board of Regents. Data can be provided to Special Education by each of these schools, either directly, or through state-level administrators.

Data on private school programs serving handicapped children could be requested directly from each of the schools by Special Education on an annual survey basis.

Because Special Education currently handles and tabulates all report data on a manual basis, application of the projection model in Nebraska would require the establishment of an interface with the state's computer and data processing facility for purposes of running the model and possibly for the tabulation of the input data for the model.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

All public school education in the State of Nebraska is administered by the Department of Education, responsible to an elected State Board of Education. Within the Department of Education is a Division of Instructional Services, and within this division is the Office of Special Education.

Special Education is responsible for state level assistance to local school districts and Educational Service Units (ESUs) in the provision of educational services to handicapped children.

There are 19 ESUs in Nebraska operating on an approximately regional basis, each providing supplemental and special education programs to several school districts. The ESUs are autonomous, having their own boards of directors and administrators and some ability to levy tax for their support. An ESU can provide services only when requested to do so by a school district, and not all counties in the state have chosen to participate in an ESU.

The County Superintendent is, by law, the chief school officer in any county. For counties having only Class I schools (grades K-8), the County Superintendent is usually the only contact for the state level administrators of education programs. For counties having Class 2 through 6 schools (K-12 and 9-12) and larger cities, District Superintendents act as contact persons for the state level in most cases.

In addition to the service provided by the Office of Special Education, special education programs in state residential schools are administered by the Division of Administrative Services. These schools are the Nebraska School for the Deaf, the Nebraska School for Visually Handicapped, and the Nebraska School for Trainable Children.

Because of the allocation of vocational rehabilitation funds to Special Education in all the states, the Office of Special Education is also working closely with the Division of Rehabilitation Services, Special Needs Section, for coordination of programming and funding of special education in Nebraska.

Other state level agencies involved in the administration of special education programs include the State Department of Public Institutions and an elected State Board of Regents.

Within the Department of Public Institutions, the Division of Medical Services administers four institutional school programs for handicapped children—two for emotionally disturbed, one for mentally retarded, one for physically handicapped. Under the Board of Regents, the University of Nebraska

Medical Center operates the Nebraska Psychiatric Institute and, more recently, the Children's Rehabilitation Institute.

An informal chart showing the structure of the state services being provided in Nebraska is shown in Figure 1.

IV. DATA ELEMENT EVALUATION

In order to utilize fully the Manpower Requirements Projection Model, a number of basic data elements must be available to the Special Education Office at the state level. The status of these data elements and the potential for the development of the flow of these elements are discussed in the following paragraphs.

Enrollment

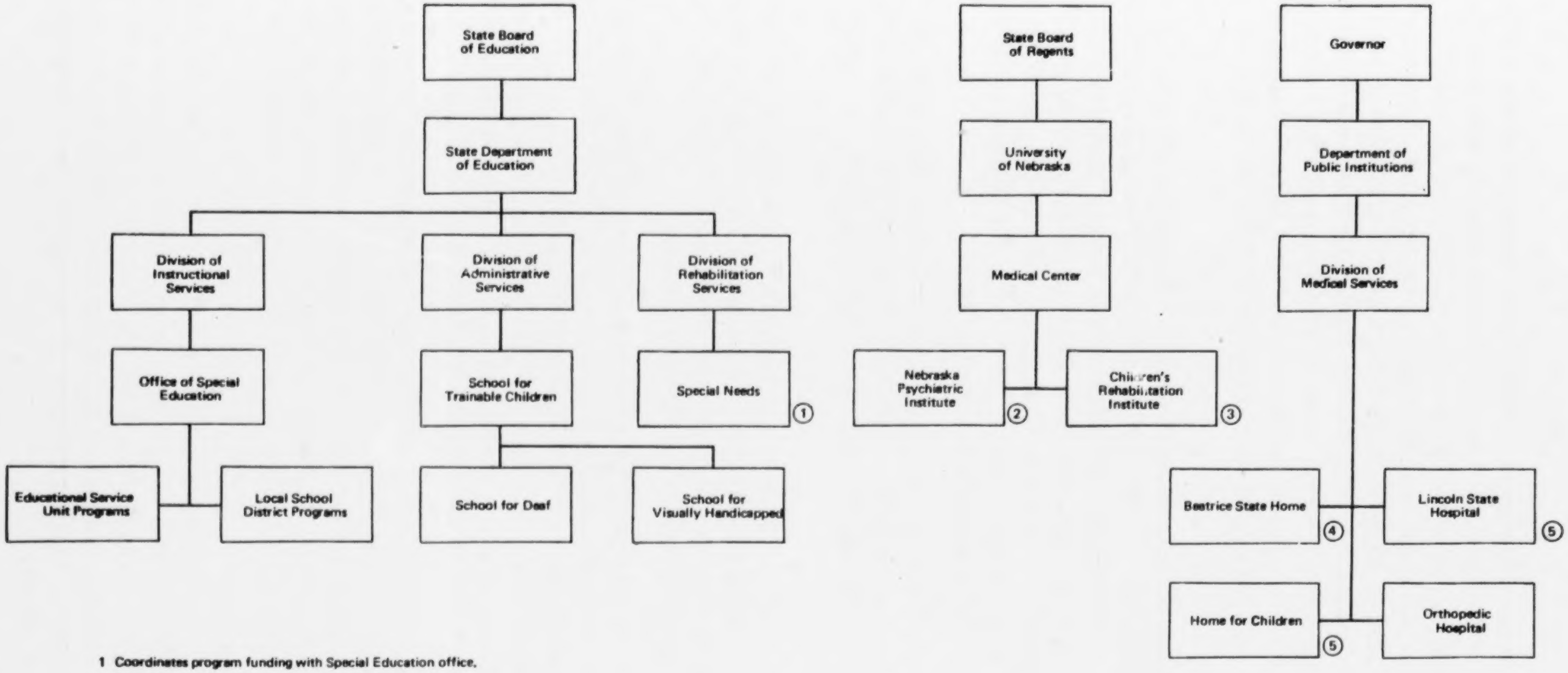
At the beginning of each year, Special Education receives a form entitled, "Application for Conditional Approval of Program," from school districts and ESUs, with a separate color-coded version of the form for each handicapping area, as follows:

Form No.	Handicapping Area
A-1	Acoustical
A-3	Emotional Disturbance
A-5a	Educable Mental
A-5b	Trainable Mental
A-6	Orthopedic
A-8	Speech
A-10	Visual.

In addition, the following versions of the form are received for other service areas.

Form No.	Service Area
A-2	Administrators of Special Education
A-4	Homebound Handicapped
A-7	Psychological Services
A-9	Transportation.

Except for form A-8 for speech handicaps, all of the forms for handicap areas list children planned for enrollment by year of age. (An example of an Application for Conditional Approval form is contained in Section X, pages D27-19 through D27-23, of this report.)


State Board of Education
State Department of Education
Division of Instructional Services
Division of Administrative Services
Division of Rehabilitation Services
Office of Special Education
School for Trainable Children
Special Needs
①
Educational Service Unit Programs
Local School District Programs
School for Deaf
School for Visually Handicapped
State Board of Regents
University of Nebraska
Medical Center
Nebraska Psychiatric Institute
②
Children's Rehabilitation Institute
③
Governor
Department of Public Institutions
Division of Medical Services
Beatrice State Home
④
Lincoln State Hospital
⑤
Home for Children
⑤
Orthopedic Hospital

1 Coordinates program funding with Special Education office.
2 Essentially short - term service for emotional disturbance.
3 Essentially short - term service for physical handicaps.
4 Service for mentally retarded.
5 Service for emotionally disturbed.

FIGURE 1. ORGANIZATION OF STATE AGENCIES PROVIDING SPECIAL EDUCATION SERVICES IN NEBRASKA

The Director of Special Education reported that because of the difficulty faced in identifying the children who would receive speech and hearing therapy during each year, the requirement to list the children to be enrolled was removed. Data on these children is now received on an Annual Speech and Hearing Report, Form A, which is a cumulative report of all speech and hearing therapy provided by a school unit. (A copy of this report form is contained in Section X, pages D27-24 through D27-26.) One of the items on this report indicates types of speech problems served, with counts for grades K through 6 and 7 through 12. Another item indicates the total number of children receiving hearing therapy during the year.

For Special Education to obtain year of age data on speech handicapped children served each year, the Annual Speech and Hearing Report could be expanded to include a breakdown of individual grade levels of children served (beyond the current K-6, 7-12), and this could be converted to year of age and tabulated for inclusion in the projection model data base. A count of children served, by single year of age, could, of course, be requested on this form, but might be more difficult to aggregate at the local level.

Year of age data could also be requested on this form for children receiving hearing therapy during the year. Again, a breakdown of individual grade levels, which could be converted to years of age, would be satisfactory for projection model purposes.

Because handicapped children who are added to classes, or dropped from classes, are reported to Special Education during the year, final counts of children served in all handicapped areas are not made until the end of the year (for purposes of state reimbursement for excess costs).

With the exception of form A-1 for acoustically handicapped children, the application forms do not indicate the type of program in which the children are served (e.g., special classroom, resource room, itinerant teacher, or other). If Special Education wished to make analyses of the "mix" of programs in which children were served, these application forms would have to be modified to include some indication of the type of program being offered.

Multiple handicap children are placed in Nebraska special education programs on the basis of predominant handicapping condition. A Multiple-Handicapped Case File is maintained by Special Education, however, with a card for each child identified. Multiple handicaps can therefore be differentiated from the other handicapping areas for inclusion in the projection model data base.

Only total counts of children by handicap are now being tabulated each year by Special Education. For model input, data would have to be tabulated by handicap, year of age, and any program types being provided. Because of the number of forms involved, and the number of handicapped children being reported, Special Education could consider the application of automated data processing techniques to the tabulation effort.

Waiting Lists

At this time, no data on children diagnosed as handicapped but not enrolled in a special education program are available at the state level (except for total counts of speech handicapped children). These data would have to be developed by Special Education for inclusion in the projection model data base.

Special education programs are being offered in 165 school districts, and by 19 Educational Service Units (serving a number of districts) in Nebraska. While this accounts for only a fraction of the total 1700 school districts in the state, it does account for the vast majority of all students in public schools (almost 90%). If data could be collected from these special education programs through districts and ESUs, these data would be fairly representative of the state overall, and would constitute a sound base for estimation of the balance of the state's need for special education programs.

One approach to the collection of program waiting list data could involve a request for these data from those schools and ESUs that are providing special education programs and submitting annual Application for Conditional Approval forms to Special Education. Special education personnel in these schools and ESUs could be asked to maintain counts or lists of children, by year of age and type of handicap, who have been diagnosed as handicapped but not yet enrolled in a program. These counts or lists could then be submitted to Special Education each year along with the Application for Conditional Approval forms and could be tabulated at the state level in the same manner as the enrollment data.

Data on speech therapy and hearing therapy waiting lists could be collected in another way, using the Annual Speech and Hearing Report. This report now requests a total count of active speech handicapped cases not served during the year because of insufficient time. If this count could be broken down by individual grade level or by single year of age of the children, it could serve as waiting list data for inclusion in the projection model data base. Likewise, if a count of children, by year of age, who did not receive hearing therapy during the year could be requested on this report, this data could also be included in the model data base.

Movement Into and Out of Handicapped Child Population

Newly Diagnosed. Since 1967, legislation has been in effect in the State of Nebraska requiring that special education services be provided to all children identified as needing them. In light of this mandate, a Special Report of Handicapped Children is filed by each County Superintendent as part of the annual school census conducted by the Department of Education. A copy of this form is shown in Figure 2. While the format of this census report would satisfy the age-handicap data needs of the projection model, a shortage of special education diagnostic personnel to assist counties in this annual census of handicapped

SPECIAL REPORT OF HANDICAPPED CHILDREN

Report of County Superintendent of ________________ County to State Commissioner of Education   Report for 19____
Sections 71-1404, 71-1406, 79-458, and 79-1006, Nebraska statutes. Note: Make four copies of this report. Retain one copy for your files, give one copy to the County Public Welfare Director, and two copies to the State Department of Education.

Name of Child (List alphabetically) Last name, First, Middle	*Dist. No.*	*Date of Birth*			*Sex*	*Name of Parent or Guardian*	*Post Office Address of Parent or Guardian*	*Type of Handicap*	*In School*		*Name and Location of School, Hospital or Institution*
		Month	*Day*	*Year*					*Yes*	*No*	

(REPRODUCED FROM STATE FORM)

Date________________________, 19___

Signed________________________________
County Superintendent of Schools

children has resulted in apparently inaccurate counts of children. Comparisons of these census reports with other enrollment reports and school psychologists' reports indicate that many children known to be handicapped are overlooked by the census. As a result, Special Education has not relied upon the annual census for determining special education needs.

No data on annual incidence of handicap in the state have been collected by Special Education. Some local estimates of incidence have been made by special education staff, based upon total school population in the state. National statistics on handicaps have also been utilized in the past to estimate the handicapped population in the state. While national statistics may be acceptable as a starting point in the estimation of annual incidence of handicaps, these estimated rates should be validated as much as possible by applying actual incidence counts, special studies, etc., to the estimations.

In order to obtain some actual incidence data for correction or validation of current incidence estimates (incidence rates being needed as input to the projection model), Special Education could attempt to monitor the number of new diagnoses of handicapped children being made each year. This could be accomplished in conjunction with the collection of enrollment and waiting list data, as described in previous paragraphs. As shown in Figure 2, the Application for Conditional Approval forms use several columns to record specific information on each child served. A column could be added to each version of this form (or an existing column could be redefined or modified) to indicate whether each child reported had been diagnosed as handicapped for the first time that year. For new diagnoses, a code number or letter could be placed in the column behind the names of the appropriate children. During the year, as new children are added to the programs and reported to Special Education, the local personnel could indicate whether each of these children had been diagnosed as handicapped for the first time. In addition, if waiting lists of handicapped children could be submitted to Special Education each year (as previously discussed), these waiting lists could also be designed to allow for indication of those children who were newly diagnosed.

For speech therapy and hearing therapy, the Annual Speech and Hearing Report would probably be the best vehicle for obtaining annual incidence counts. The report currently contains an item requesting a total count of children screened for speech problems. If another item could be added to the report, requesting a count, by individual grade level or year of age, of children newly diagnosed or identified as speech handicapped, this would provide annual incidence data useful in the projection model data base.

A similar item could be added to the report to obtain a count of children newly diagnosed or identified as acoustically handicapped by the therapists. If, in fact, hearing therapists would include all public school children newly diagnosed in this count, there would probably be no need to request data on newly diagnosed children from the teachers of classes for acoustically handicapped, as described in previous paragraphs.

If each of the forms previously discussed could be used to identify newly diagnosed children by year of age and handicap, these data on new diagnosis could be tabulated at the state level along with the enrollment and waiting list data.

Another source of diagnostic data available to Special Education would be the Confidential Psychological Reports submitted by school psychological personnel for each child diagnosed by them as handicapped. These report forms indicate year of age for each child, and results of the examination. If these forms were to be tabulated each year, counts of diagnoses could be obtained, and could be used to double-check counts of newly diagnosed children (primarily mentally handicapped).

In addition, physicians who diagnose physical handicaps and homebound cases are asked to submit letters to Special Education acknowledging the diagnosis. These, too, could be used to double-check counts of newly diagnosed handicapped children. Because they are received on such an irregular basis, however, neither the psychologists' reports nor the physicians' letters could be relied upon, in themselves, for accurate counts of diagnosis each year.

Intrastate Transfers. In addition to children newly diagnosed as handicapped each year by district personnel, school psychologists, or clinicians, it is possible that schools will acquire children who have previously been diagnosed or identified as handicapped in other school districts in the state. Rather than reporting the children again that year as newly diagnosed (which could distort the annual incidence picture in the state), these intrastate transfers should be reported separately as much as possible. One approach to doing this would involve the creation of a code letter or number for intrastate transfers, to be used in exactly the same manner as the codes previously described for identification of newly diagnosed children. Each of the enrollment forms, and the suggested waiting list, could be used to indicate intrastate transfers known to district and school special education personnel. Speech and hearing therapists could also be asked to record counts of intrastate transfers, in addition to counts of newly diagnosed children, on the Annual Speech and Hearing Report.

Attritions. Data on attritions from public school special education programs are not now being tabulated at the state level, although Special Education does receive a notice (for reimbursement purposes) from local schools or ESUs when a child withdraws from a program during the year. This notice could be used as the basis for annual tabulation of attrition data for the projection model. Further, if the instructions for updating the status of the programs each year could be extended to include specification of reason for withdrawal, Special Education could also develop a more detailed base of attrition data for purposes of program analysis. Standard reasons for attrition could be developed for reporting purposes (e.g., return to regular education, mortality, or other reasons in which administrators would be interested), and a simple code letter or number could be reported as part of the notice of withdrawal from the program.

Here again, the Annual Speech and Hearing Report could probably be used to obtain attrition data on speech handicapped children and on hearing therapy (as opposed to classroom) cases. The report currently contains items requesting total counts of speech handicapped children dropped from service or dismissed with adequate speech during the year. If these items could be modified to request counts of attrition by year of age, attrition data requirements of the projection model would be satisfied in the speech handicap area. These same attrition data could, of course, be requested from the hearing therapists as well. In this case, counts of attritions would be restricted to therapy cases, so as not to be confused with attritions from class programs that would be reported by teachers.

Receiving these data each year, Special Education could tabulate attritions, by year of age and handicapping condition, along with the other data elements needed for inclusion in the projection model data base. Data on reasons for attrition could also be tabulated by Special Education for purposes of program planning and improvement.

General Population Projections

The Statistical Services and School Finance Section within the Department of Education is currently making four-year projections of Nebraska's general school population (including public, nonpublic, and state schools). These projections, published each year in "Nebraska School Statistics," are made by grade level and would provide a good base for general population projections by year of age. It is also likely that projections beyond four years could be obtained by Special Education upon request. No problem in obtaining projection data for inclusion in the projection model is anticipated.

Trends in Enrollment

Data to plot enrollment trends in special education programs, by handicap type and educational level, are currently available to Special Education on the Application for Conditional Approval forms and the Annual Speech and Hearing Report, as previously described. If Special Education wanted to make more detailed analyses of the "mix" of programs being conducted, these forms could be modified to provide some indication of the program types in which the children are served each year.

Some trend work is already being done by Special Education. Every two years, special education program trends are included in school budget projections. No problem is anticipated in assembling the data needed to plot enrollment trends.

Personnel

Detailed data on the numbers and types of special education personnel are currently received by Special Education as part of the Application for Conditional

Approval form submitted by districts and ESUs each year. Personnel/pupil contact ratios for use by direct contact personnel have also been established by Special Education. In general, the data needed to determine the special education manpower gap, in conjunction with the projection model, could be assembled by Special Education from its own personnel records.

The Department of Education is now developing an automated (optical scanning) personnel reporting system which should also provide Special Education with personnel data on an annual basis.

Data From State Schools For Handicapped Children

Residential Schools for Handicapped Children. The Division of Administrative Services, within the Department of Education, administers three residential school programs. While most of the data elements that would be needed for inclusion in the projection model data base are not now available at the state level, these elements do exist at the school level and could be requested by the Division of Administrative Services and forwarded each year to Special Education. Because these schools are responsible to the Department of Education, good communication and cooperation with Special Education can be anticipated.

Institutional Schools for Handicapped Children. The Division of Medical Services, within the Department of Public Institutions, administers four institutional school programs. The operations of these programs are monitored at the state level by an Educational Consultant. In order to obtain the projection model data elements from these institutional programs, Special Education could establish a liaison with the Educational Consultant, who could coordinate the collection of the needed data and forward it to Special Education each year.

Institutes for Handicapped Children. The Nebraska Psychiatric Institute (NPI) and the Childrens Rehabilitation Institute (CRI) are administered by the University of Nebraska Medical Center. These programs provide relatively short term, intensive treatment for handicapped children. Data on the operations of these programs could be obtained each year by Special Education on a direct request basis. Good cooperation from the administrators of these programs can be anticipated.

For the collection of data from each of the foregoing state school programs, Special Education could develop forms and instructions to be used by the schools in recording and reporting the data.

Data From Private Schools For Handicapped Children.

Special Education currently maintains a directory of private schools providing special education in Nebraska. There are no data at the state level on the operations of these schools, but the Director of Special Education feels that the private schools would probably cooperate in the provision of data for inclusion in the projection model data base. Special Education could request the needed data elements each year from each of the schools on a direct basis. Here again, forms and instructions for use in recording and reporting the needed data could be provided to each school by Special Education.

V. PROCESSING POTENTIAL

Hardware

The Department of Education currently receives data processing support from the State Department of Administrative Services. Its facility currently houses two IBM 360-40s, equipped with FORTRAN compilers, which would satisfy projection model requirements. Data processing support needed by Special Education would be requested through the Division of Instructional Services. The data processing services of the State Department of Administrative Services are provided on a contract basis, with a flat rate charged for computer time.

Personnel

The State Department of Administrative Services employs systems analysts, programmers, and keypunch personnel. This staff should be capable of running the model and interpreting the results of the model. Tabulation and preparation of the input data for the model could also be handled by this group, if Special Education were to determine that automated techniques should be applied to the tabulation task.

Acceptance of Model Concept

Special Education does not currently utilize automated data processing in reporting or record keeping. All storage and tabulation has been handled on a manual basis. However, the general attitude toward the application of systems and data processing tools to program planning and management tasks seems to be positive. The possibility of obtaining the projection model should provide an opportunity for Special Education to explore the possibility of obtaining systems and data processing support for preparation of model input. In any case, the Director of Special Education expressed interest in the capabilities of the model and interest in obtaining the model. He was very cooperative in providing information on Special Education operations and in obtaining information on the operation of other state level agencies in the area of education for handicapped children.

VI. ADDITIONAL FACTORS

Nebraska is one of the states involved in the Midwestern States Educational Information Project (MSEIP). This project has attempted to coordinate state education agencies in 13 midwestern states in the identification of educational information requirements and in the development of information systems to satisfy those requirements. The complete or "ideal" data base that has been developed by the MSEIP contains data elements that would satisfy most projection model input needs.

Because the MSEIP is not yet being implemented in any of the states involved in the project, it cannot be relied upon at this time to provide data needed for projection model utilization. Special Education should coordinate any future systems development effort with the MSEIP in order to avert any possible duplication of effort in this area.

VII. RECOMMENDATIONS

For public school special education programs, data on enrollments by single year of age and handicapping condition (except speech handicapped) are currently received by the Office of Education. If the Annual Speech and Hearing Report could be expanded to include a list or count of children served by single year of age, all public school age-handicap enrollment data needed for projection model application would be available at the state level. Because most of these report forms do not indicate the type of program in which children are enrolled, these forms would have to be modified to include this information should Special Education wish to analyze the "mix" of programs as part of projection model application.

In conjunction with the special education mandate in Nebraska, an annual census of handicapped children must be taken each year in each county. While the accuracy of the data now being submitted to the state level is questionable, this census could be developed into a good mechanism for the collection of data on the unserved handicapped child population if there could be greater involvement of qualified special education diagnosticians at the local level (in order to validate the census counts). The extent to which this can be accomplished at this time is limited by the funds that are available for concentrated diagnostic work at the local level.

An alternative approach to the collection of data on the unserved handicapped child population could involve the creation of waiting lists for special education programs. If special education personnel in local schools and Educational Service Units could be asked to maintain lists or counts, by age and handicap, who have been diagnosed as handicapped but are not yet enrolled in a program, Special Education could collect these data on an annual basis along with the annual enrollment data.

Further, data useful in the correction and validation of current estimated annual incidence rates could also be collected by Special Education in conjunction with enrollment and waiting list data. For example, the enrollment report forms could be modified to allow for indication of those children who were diagnosed for the first time that year as handicapped. The forms could also allow for indication of those children who transferred into the programs from other districts in the state where they had previously been diagnosed as handicapped. In addition, the suggested special education waiting lists could be designed to allow for indication of both newly diagnosed children and intrastate transfers of children.

If these data could be included in the enrollment and waiting list forms, annual incidence counts could then be made by Special Education for inclusion in the projection model data base.

Because the enrollment data reported to Special Education are updated by local personnel during the year, this update procedure could provide the basis for collection of annual attrition data from special education programs. As discussed in the Data Element Evaluation section, if current reports of withdrawals from programs could be aggregated each year, Special Education could tabulate annual attritions, by age and handicap for inclusion in the projection model data base.

The collection of waiting list, annual incidence, and attrition data for speech and hearing therapy cases could probably best be approached through modification of the Annual Speech and Hearing Report, as opposed to the approach described in the preceeding paragraphs for the other handicapping areas.

As discussed in the Data Element Evaluation section, Special Education does not anticipate any problem in obtaining projections of the general child population of the state. Data to plot and analyze enrollment trends should also be available within Special Education.

Personnel/pupil contact ratios have been established by Special Education, and counts of the various types of special education personnel are available from records currently maintained by Special Education.

For the collection of the required data elements from the residential and institutional programs administered by the Division of Administrative Services and the Department of Public Institutions, a liaison could be established between Special Education and the administrators of these programs at the state level. Special Education could develop forms and instructions to be used by each of the schools in reporting the needed data elements, on an annual basis, to the state level administrators, who could then forward the reports to Special Education. For the collection of the needed data elements from the Nebraska Psychiatric Institute, the Children's Rehabilitation Institute, and from private school programs for handicapped, forms and instructions could be provided to each of these schools on an individual basis. In regard to both the state and the private schools, Special Education cannot require that data be reported; they can only request that it be reported for inclusion in the state-wide projection model data base. Good cooperation would be anticipated in this effort, however.

Special Education has not utilized automatic data processing for record keeping. Data collection and tabulation has always been handled on a manual basis. While it is possible that the tabulation of the age and handicap data on enrollments, waiting lists, incidence, and attrition could be done manually (probably requiring some additional part-time clerical support), Special Education should examine the possibility of using the ADP capability that is developing within the Department of Education. The number of records with which Special Education has been working, as well as the volume of new data (as described in this report) that could be developed, would suggest the application of automatic data processing techniques. ADP tabulation of data could be justified in terms of staff time and effort and in terms of the flexibility of data analysis that would be gained.

VIII. RESOURCE REQUIREMENTS—MANPOWER

If current report formats, supplemented by additional new formats, were used for the collection of the data elements needed for model input, some time would be required on the part of a systems analyst working within the Office of Special Education. Tasks would include assisting with modification of current formats and instructions; assisting with the design of new formats and writing of new instructions; development of procedures for handling forms at the local and state levels; establishment of data flow and interface between Special Education and the data processing facility that would run the model; and establishment of data flow liaison between Special Education and the other state and private agencies operating special education programs. A minimum of 2 man-months of systems analysis, over a period of 24-30 months would probably be required to implement the new reporting procedures. Some coordination and assistance on the part of current Special Education staff would, of course, be needed during the implementation period, especially in the area of communication with local school personnel. Approximately 2 man-months of special education staff effort, 1 man-month of forms design time, and 1 man-month of programming time will be required during the implementation of the automated system.

If data would be manually tabulated, an additional 2 man-months of clerical time, 2 man-months of special education staff effort, 1 man-month for forms redesign and 1 man-month of systems analyst time would be required to modify the present procedures. If automatic data processing could be employed for tabulation of the input data, 1 man-week of systems analyst time, 1 man-month of special education staff time, and a small amount of clerical support, would be required over each year for on-going maintenance.

Maintenance of the manually tabulated system will also require annual support of approximately 1 man-month of special education staff time and 2 man-months of clerical support.

IX. PERSONS INTERVIEWED

Mr. John B. Lamphere, Director
Special Education
Division of Instructional Services
Department of Education

Mr. Stanley L. Hawley, Deputy Commissioner
Division of Administrative Services
Department of Education

Mr. Vernon E. Hungate, Educational Consultant
Division of Medical Services
Department of Public Institutions

Mr. Carl Novak, Administrative Consultant
Division of Instructional Services
Department of Education

Dr. Merrill Eaton, Director
Nebraska Psychiatric Institute
University of Nebraska Medical Center

X. CURRENT REPORT FORMATS

Application for Conditional Approval of Program for the Acoustically Handicapped (Form A-1)

Annual Speech and Hearing Report (Form A)

NSDE
SES: A-1
Complete in Duplicate

State of Nebraska
DEPARTMENT OF EDUCATION
Office of Special Education

Application for Conditional Approval of Program for the Acoustically Handicapped

Name of School or Service Unit ____________________

City ____________________

School District No. ____________________

County(ies) ____________________

(REPRODUCED FROM STATE FORM)

Commissioner of Education
State Capitol
Lincoln, Nebraska 68509

Pursuant to the requirements of Sec. 43-604 to 43-611 incl., Session Laws of Nebraska, 1949, providing for the special education of handicapped children, we submit herewith our application in duplicate for conditional approval of the plan for the acoustically handicapped.

I. Estimated number of resident children to receive special service.......... ________

Estimated number of non-resident children to receive special service. ..... ________

Total. .... ________

II. Date:

A. Of making this application ______________________________, 19___

B. Of beginning special service ______________________________, 19___

C. Of beginning regular school ______________________________, 19___

III. Estimated excess cost for the special service as outlined in this application:
$____________________

IV. Specific Plans and Standards:

A. Who is to be administratively responsible for this program?

Name ____________________

Title ____________________

B. Please check type of program:

Special classroom_____ Itinerant teacher(s)_____

Resource room________ Primarily language training_____

Other (Please explain)____________________________________

C. Have each of the children been examined by a qualified otologist?.......________

D. Have each of the children been examined by a qualified audiologist?.....________

E. Have each of the children been examined by a qualified psychologist?....________

F. Explain your method of admittance to the program________________________

G. Explain the plan used, if any, for the integration of the special program with the total educational program.

H. What provisions are made to enable your teacher(s) or clinician(s) to attend conventions or meetings pertaining to the acoustically handicapped?

I. Explain your provisions for parent counseling in connection with this program.

J. Whenever students are added or dropped during the year, submit the student's name, sex, age, grade level, date of last test, and reports by otologists and audiologists when placement is made.

We understand that our claim for excess cost is to be based upon actual expenditures above the regular per pupil cost made by the school district for carrying out the above plan.

We recognize that final approval of this program for reimbursement of excess cost by the State is contingent upon: (1) our carrying out of the plan of special education herein included; (2) our submission of the required reports; (3) satisfactory visitation reports by representatives of the State Department of Education; (4) preparation of notarized claim form indicating total expenditures; (5) funds available for excess cost reimbursement.

Secretary, Board of Education	Address
City or County Superintendent or Service Unit Administrator	Address

---

(District will not fill in the following section)

Conditional Approval Granted_________ Not Granted_________

Comments:

(REPRODUCED FROM STATE FORM)

Date	By: For: Commissioner of Education

Teacher or Clinician Information - Acoustically Handicapped

Complete in Duplicate

Name ______________________ Social Security Number ______________

Home Address ______________ City ______________ Zip Code ______

Years of Teaching Experience: Acoustically Handicapped ______ Other ______

Making Application For: Teacher of the Deaf _____ Hearing Clinician _____

Present Annual Salary

Degree(s)

NEBRASKA CERTIFICATE

TYPE: Administrative ____ Teaching ____ Special Services ____

RANK: Provisional ________ Professional ________
Pre-Standard ________ Emergency ________
Standard ________ Other (Specify) ________

LEVEL: Elementary ________ Secondary ________

SPECIFIC ENDORSEMENT: ______________

Where and when was special training taken? ______________

Number of courses in:
education of the deaf ______________
aural rehabilitation ______________
audiology ______________
similar areas (explain) ______________

speech therapy ______________

Number of semester hours in related areas: (psychology, etc.) ______________

(REPRODUCED FROM STATE FORM)

(District will not fill in the following section)

Conditional Approval Granted ______ Not Granted ______

______________ By: ______________
Date For: Commissioner of Education

Complete student information for only those under this teacher's or clinician's supervision.

(Over)

D27-21

Complete in Duplicate

State of Nebraska
DEPARTMENT OF EDUCATION
Office of Special Education

Application for Approval, List of Acoustically Handicapped

Name of School____________________City____________Dist. No._______County____________

Name	Sex	* Age	Grade	Dist. No.**	Progress			Number of Years in Special Class Including Current Year	Date of Beginning Service This Year
					Excellent	Average	Poor		
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10									
11									
12.									
13.									
14									
15.									
16.									
17.									
18									
19									
20.									

*Refer pupils attaining age 16 to Division of Rehabilitation Services

**List district number of non-resident pupils only.

In regard to student changes during the year, refer to IV, J of this application.

FORM A

STATE OF NEBRASKA
DEPARTMENT OF EDUCATION
Floyd A. Miller, Commissioner
Lincoln 68509

ANNUAL SPEECH AND HEARING REPORT

UNIT________________________________ SCHOOL YEAR 19___ - 19___

Source of Reimbursement (Please check)

1. State________
2. Title I________
3. Title III________
4. Title VI________
5. Educational Service Unit________
6. Other (specify)________

(REPRODUCED FROM STATE FORM)

F-O-R-M A (This report is to be filled out as a cumulative report by all therapists in a unit.)

Number of therapists in unit:______________________________

Supervisor of Program:____________________________________

* * *

1. Number of active cases still in need of therapy at end of year..........________
2. Number of cases dropped during the year (not corrected, moved,..........________
parent request, etc.)
3. Number of cases dismissed during the year with adequate speech..........________
4. Total number of children receiving therapy during the year.............________
(Total number 1, 2, and 3)
5. Number of cases not served this year because of insufficient...........________
time in the schedule.
6. Total number of children still in need of therapy services.............________
(Total numbers 1 and 5)
7. How many children still needing therapy have been in the...............________
program three or more years?
8. How many children were screened for speech problems?..................________

9. How many children were served from special classrooms? .... __________

10. Number of children referred to a clinic or some other out-of-school agency

a. for speech evaluation only .... __________

b. for audiological evaluation only .... __________

c. for both the above .... __________

d. for medical examination and/or treatment .... __________

e. for dental examination and/or treatment .... __________

f. for psychological evaluations and/or treatment .... __________

TOTAL .... __________

11. Types of speech problems: (Primary Problem)	K - 6	7 - 12
a. Functional		
1. Articulation	_____	_____
2. Stuttering	_____	_____
3 Other non-fluencies		_____
4. Voice		_____
5. Foreign accent	_____	_____
6. Delayed speech	_____	_____
7. Others	_____	_____
b. Organic		
1 Hearing and speech	_____	_____
2 Cleft palate	_____	_____
3. Cerebral palsy	_____	_____
4. Voice	_____	_____
5. Tongue-thrust	_____	_____
6. Other	_____	_____
TOTALS	_____	_____
GRAND TOTAL		_____

(REPRODUCED FROM STATE FORM)

PART III HEARING CONSERVATION REPORT FORM A Page 3

1. Who does the hearing screening in your school system?

2. Who does the refined hearing testing in your school system?

3. How many children were screened for hearing problems?.................... ________
   (either by therapist, nurse, or other)

4. Number of children found to have a hearing loss........................ ________

5. Please state criteria used for determining hearing loss.

6. Number of hearing impaired children referred to:
   a. family physician only.................... ________
   b. ear specialist only.................... ________
   c. to family physician and subsequently to ear specialist.................... ________
   d. other (explain).................... ________

7. Number of hearing impaired children for whom therapy was provided on a regularly scheduled basis.................... ________

8. Number of hearing impaired children for whom only supervision (through conferences with professional persons and/or parents) was provided.................... ________

9. Does your school system own an audiometer(s)? Yes________ No________
   If YES, what make(s) and model(s)

10. Is an audiometer made accessible to you for use in your speech and hearing program? Yes________ No________

11. Is the audiometric equipment used in your school system calibrated at least every two years? Yes________ No________

12. Is other equipment such as desk model a and/or auditory trainers available to your speech an 1? Yes________ No________

    List:

(REPRODUCED FROM STATE FORM)

TABLE 1

SUMMARY OF DATA DEVELOPMENT STATUS

NEBRASKA

DATA ELEMENTS			PUBLIC SCHOOL PROGRAMS			STATE RESIDENTIAL/INSTITUTIONAL PROGRAMS			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Available at state level	Enrollment reporting forms could be modified as required	Application for conditional approval of program (for each handicap area) and annual S&H report	Not now available at state level in form needed. Does exist at school level	State level program administrators could request that schools begin to monitor the needed data elements. Forms and procedures for data collection could be developed and provided to each school by Special Education.	Individual residential and hospital school programs—pupil and personnel records maintained by these programs	Data not now available at state level. Could be requested from each private school on an individual basis each year.
		HANDICAPPING CONDITION	Except speech and hearing therapy						
		EDUCATION PROGRAM	Not now avail. (except for hearing handicaps)						
	ON WAITING LIST	AGE	Not now available at state level	Waiting lists could be requested, and S&H report could be modified					
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not now available at state level	Could be coded on enrollment reports and waiting lists, and included in annual S&H report	Special Education teachers and therapists at local level				
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	AGE							
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE		Could be obtained through modified S&H report and modified enrollment updating procedure					
		HANDICAPPING CONDITION							
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Basic data exist	Can be requested by Special Education	Stat. services and school finance section				
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Program types not now reported	Enrollment reporting forms could be modified	Application for conditional approval forms				
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Available at state level						
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE									

NEVADA STATE ANALYSIS REPORT

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VIII. RESOURCE REQUIREMENTS—MANPOWER D28-12

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

NEVADA STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state education agencies, and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of this Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow procedures to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Nevada and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

The ability of the State of Nevada to develop the data flows necessary to implement the model is severely limited in several ways.

The present data availability at the state level is limited to only two items, namely, the enrollment data by some of the recognized handicaps, and the special education manpower data. Some of the missing data is available from the counties or local school districts, of which there are less than a score. The well established relationship between the state consultant for special education and county special education officials should enable the data flow to be readily implemented in the populous counties, at least. However, the attitude of a key assistant superintendent who controls form design, data collection at state level, and use of data processing by department of education is negative towards Federally sponsored education projects. Any assumption of his cooperation, which appears necessary for implementation, would be unrealistic at this time.

The state central data processing facility, while adequate in terms of capability, is not currently available due to its work load. Processing by an outside service bureau is not permitted by state policy. The only personnel experienced in handling the input and output of the Model are in the state's central data processing center.

Since the state special education staff is limited to one consultant the amount of effort that could be devoted to the implementation of the predictive model is severely limited. But this constraint is less binding than that posed by the administrative services office and the general data unavailability.

The attitude of all the special education personnel, excluding the above mentioned assistant superintendent, was very good. In spite of apparent difficulties they appeared anxious to try to implement the data flow in near-term future.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The state department of education consists of the State Board of Education, the State Board for Vocational Education, and the administrative organization and staff. Together they exercise administrative functions relating to supervision, management, and control of public schools and, in addition, are responsible for maintaining liaison and coordinating activities with other state agencies having education functions. These responsibilities are exercised by a state superintendent (see Figure 1), his deputy superintendent who coordinates the divisions, and an assistant superintendent who coordinates the most populous area of the state—Southern Nevada. There are three divisions, each of which is headed by an assistant superintendent. They are the Division of Operations, which is the focal point for Federal relations and programs and has responsibilities for professional standards and development as well as for providing internal support to the department; the Division of Education Services, which has vocational and technical education responsibilities for children and adults in addition to curriculum and instruction duties in public and special schools; and finally, the Division of Administrative Services, which is charged with financial and statistical responsibilities besides providing logistical support services to education in Nevada.

Special education and ESEA Title VI responsibilities are administered by the Consultant for Special Education, who reports to the Chief of the Branch for Curriculum and Instruction and, in turn, to the Assistant Superintendent for Division of Educational Services. This consultant for special education

a. Supervises, coordinates and administers all aspects of a state-wide program for exceptional pupils

b. Participates in planning state programs for education and service to handicapped pupils by reviewing and evaluating individual school district plans, recommending changes and administering approved programs

c. Works with other state agencies in the coordination of state planning for services to exceptional pupils

d. Reviews programs and services periodically to ensure that activities conform with existing laws, regulations, and policies, and recommends needed revisions

e. Assists in formulating and modifying division and department procedures and policies

f. Interprets the exceptional pupil program to administrators, professional groups, and the public through meetings and correspondence

g. Serves in an advisory capacity to state school district personnel in the area of on-going programs.

Special education responsibilities are shared by the Bureau of Mental Retardation, Department of Health, primarily in the State Hospital for Mental Retardation in Reno (see Figure 2). Here the severely and profoundly

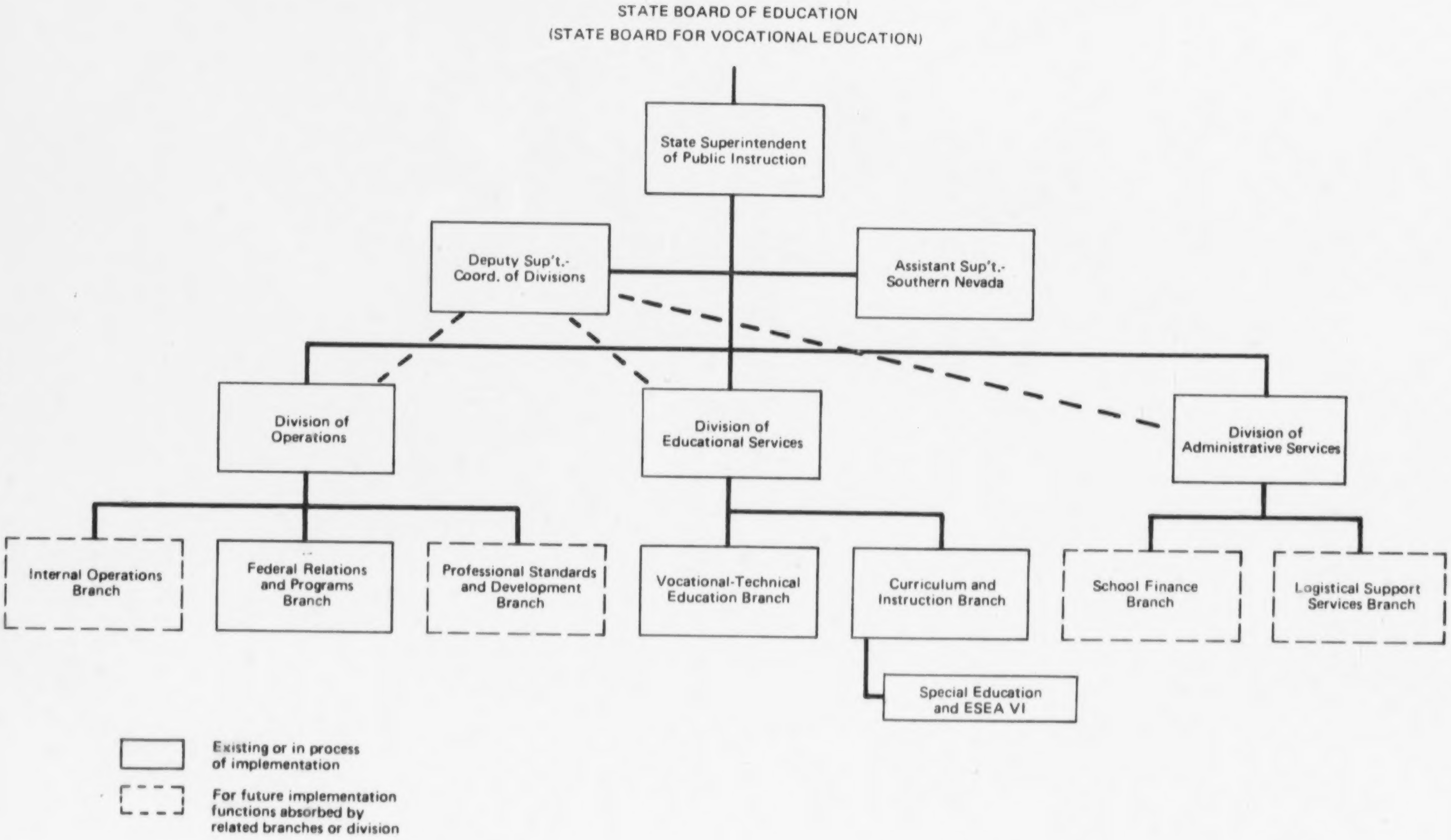
STATE BOARD OF EDUCATION
(STATE BOARD FOR VOCATIONAL EDUCATION)
State Superintendent of Public Instruction
Deputy Sup't.- Coord. of Divisions
Assistant Sup't.- Southern Nevada
Division of Operations
Division of Educational Services
Division of Administrative Services
Internal Operations Branch
Federal Relations and Programs Branch
Professional Standards and Development Branch
Vocational-Technical Education Branch
Curriculum and Instruction Branch
School Finance Branch
Logistical Support Services Branch
Special Education and ESEA VI
Existing or in process of implementation
For future implementation functions absorbed by related branches or division

FIGURE 1. EDUCATIONAL ORGANIZATION OF STATE OF NEVADA

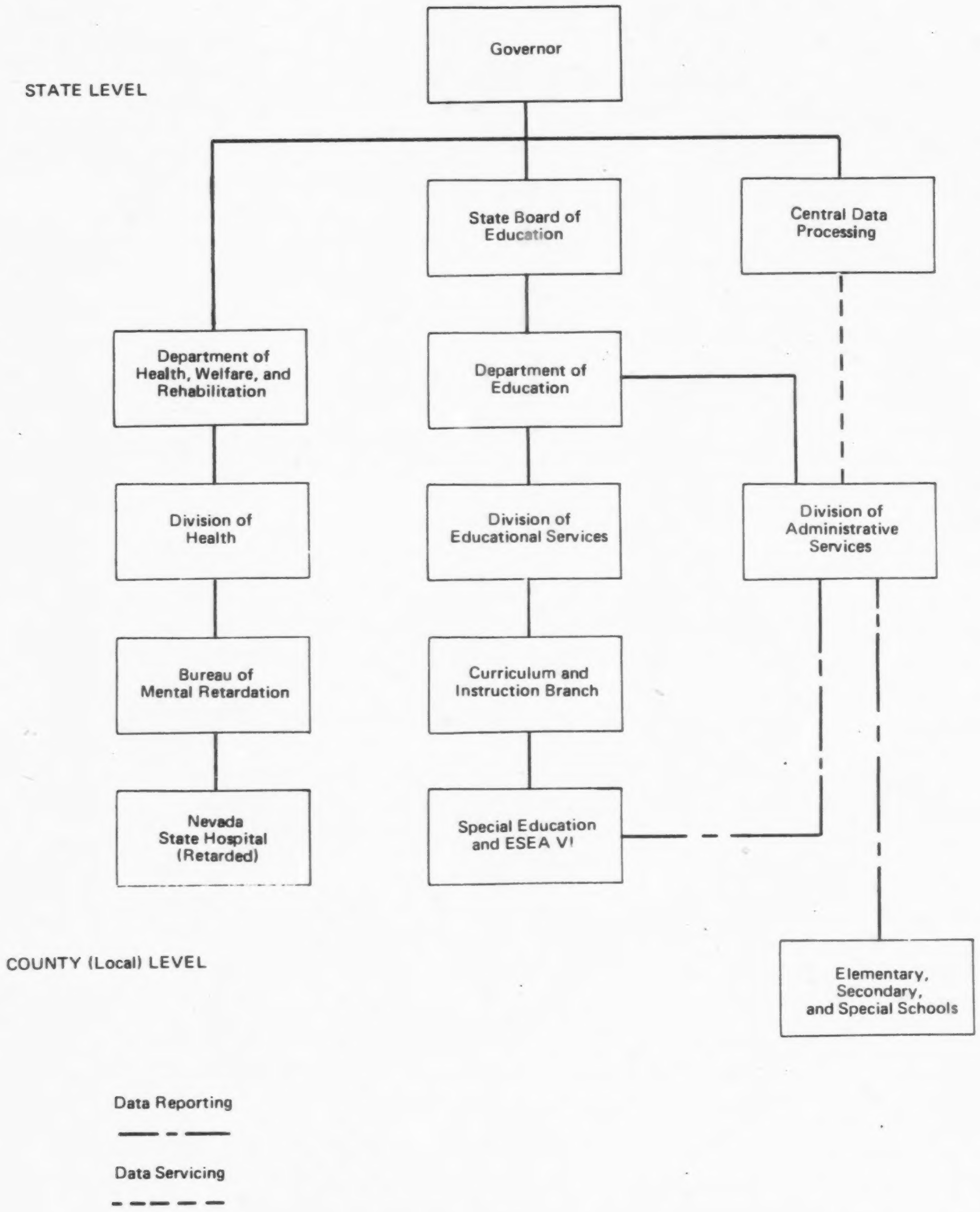
STATE LEVEL
Governor
State Board of Education
Central Data Processing
Department of Health, Welfare, and Rehabilitation
Department of Education
Division of Health
Division of Educational Services
Division of Administrative Services
Bureau of Mental Retardation
Curriculum and Instruction Branch
Nevada State Hospital (Retarded)
Special Education and ESEA VI
COUNTY (Local) LEVEL
Elementary, Secondary, and Special Schools
Data Reporting
Data Servicing

FIGURE 2

ORGANIZATION OF SPECIAL-EDUCATION SERVICES IN THE STATE OF NEVADA mentally retarded and emotionally disturbed are treated. In addition to the residential program there is a limited day care program.

The correctional institutions, including Wittenburg Hall and Spring Mountain, have small special education programs for which the county or state special education department provides the teachers. For reporting and reimbursement these are considered special schools.

Also reporting as special schools are the Community Training Centers, which are a cooperative venture of state Vocational-Technical Division and Special Education. The handicapped children enrolled in these centers number 60 percent of their total enrollment, or about 69.

IV. DATA ELEMENTS EVALUATION

Some specific data elements are necessary for use of the projection model. The information which these data elements provides may also be very useful to Special Education for other operational analyses. These data elements, their development, and their potential sources are discussed in the following paragraphs.

Enrollment

The public and special schools currently report some enrollment data monthly to the counties or local school districts via three ED/A-2 forms (summarized in Figure 3), one for each elementary, secondary, and special school (see Section X). The enrollment data are reported by handicapping condition but exclude the deaf, the neurologically handicapped and the multiple handicapped. Also the data do not distinguish blind from partially sighted, or educable mentally retarded from trainable. The speech correction enrollment data are also reported monthly on a supplementary ED/A-2 form (see section X). This supplementary form does contain grade data, while the other ED/A-2 forms do not.

All of the forms are sent to the respective counties, where they are totaled; then the individual forms from each school plus the tallies are forwarded to the Division of Administrative Services in State Department of Public Instruction (see Figure 1).

Because these data are collected for reimbursement of local schools by the state, the forms stress average daily attendance to the exclusion of most other data.

However, the enrollment data needs of the model can be satisfied using some of the same characteristics of this data flow including the supplementary ED/A-2 forms, and the path of the flow from individual schools to counties to state.

This one supplementary ED/A-2 form in use by the speech therapists could be broadened in scope to include all handicapped children enrolled. Designation of the type of handicap as specified by special education program and age could also be incorporated in such a form. Grade data is included on the supplementary speech form. Also the inclusion of the number of classes or hours spent in special education would provide the Division of Administrative Services with the data required for reimbursement, and the model with the type of educational program.

Besides the public and special schools, the only other special education programs conducted in Nevada are at the Nevada State Hospital for Mental Retardation. Their enrollment data could easily be gathered by the proposed supplementary form ED/A-2 for special schools.

Waiting List

Waiting list information, while nonexistent at the state level, does exist at some of the county levels including the two that account for over 80 percent of handicapped child population. A new form would be necessary to collect age and handicapping condition of those on the waiting list. The officials of Washoe County, which accounts for approximately 25 percent of the served child population, had about 20 children on a waiting list at the time of the visit and stated they would gladly send the needed data to the state upon request. Likewise, similar information could be collected from the one mental retardation institute.

Transient Handicapped Child Population

Those children newly diagnosed as requiring special education are "certified" in Nevada by a state-approved local diagnostic team which may be supplemented by state personnel. This team is the best source on child entrants of this type. A year-end summary of the number certified by age and handicap could be collected by the state from these teams with a relatively simple form that would have to be developed.

Data on the handicapped children entering Nevada programs from another state can be collected on a supplementary year-end ED/A-5 form much in the same manner as data on new enrollees are collected on main ED/A-5 forms (see Section X); or, since enrollment and re-enrollment information on regular and handicapped children is currently required by the Division of Administrative Services on a monthly basis, the new enrollees from out-of-state or even the newly diagnosed can be noted in columns "date they started" and "source" and this information can be collected in the same process on a supplementary ED/A-2 form that would have to be developed.

Age, handicap, and reason for attrition from the special education programs can also be provided on the proposed supplementary ED/A-2 form by providing a column for "reason" next to the "date of education/therapy terminated." The school secretary generally has a record of this information.

General Child Population Projections

The only general child population projection was made in a special study concerned with the development of a junior college system in Nevada. This study was done by a private company several years ago and can be made available. Apparently no regular projections are made.

Projected Mix of Educational Programs

Based upon the historical enrollment data available in public schools, although limited as discussed in the Enrollment section, and upon the projected policy and emphasis in special education, the consultant for special education will be able to estimate the future mix of educational programs.

Teacher/Pupil Ratios

The policy developed by Special Education for each of the handicaps and educational levels recommends certain teacher/pupil ratios and provides for an aide in some cases. While these ratios are recommendations only, the state "reserves the right to investigate those class sizes which differ markedly from the recommendations."

Special Education Personnel

The special education consultant personally requests the special education personnel data twice a year by type of occupation. The data is manually tallied in his office and is available.

Except for the above case all educational data is collected by the Division of Administrative Services. It is fed to the state government service bureau where the tabulating and recording is done. Printouts of some of the data are sent to the Special Education Department. This flow of data via the Division Division of Administrative Services (see Figure 1) is a result of state policy and the data flow required for the model would be similar.

V. PROCESSING POTENTIAL

Hardware

The Nevada State Government data processing hardware capability resides in Central Data Processing. They currently have sufficient hardware capability to meet the model requirements. The model IBM 360/50 can provide up to 150K byte memory by summing across partitions. In addition a 360/20 is available in the controller's office for back-up. The interface between this central group and the entire department of education is the Assistant Superintendent for Administrative Services. He indicated that the service bureau was loaded to capacity at the present time and this was verified by the coordinator between data processing and education. Because of the loaded condition, computer time for model application will be difficult to obtain. This problem is further complicated by the fact that Nevada policy, according to the Assistant Superintendent of Administrative Services, prohibits buying time on another computer.

Personnel

The only personnel experienced in preparing input, operating the ADP system and analyzing output are those in Central Data Processing. Neither Special Education nor Administrative Services has this capability.

Attitude

The attitude of the people interviewed toward information requirements, the use of an analytical model and willingness to undertake the work necessary to implement the projection process differed markedly. The State Consultant for Special Education was very cooperative during the visit and expressed his definite desire to see the model and its associated data flows implemented in the State of Nevada. According to this consultant the information required by the model is similar in many respects to data needed at state level for other reasons and would eliminate a data void that exists in the state.

In addition, the County Director and the Coordinator of Special Education in Washoe County, which has almost 25 percent of the state's identified handicapped children, were very cooperative and agreed that such a system would be implemented in Nevada as soon as possible. They both expressed their willingness to submit any data required by the state or to aid the implementation effort by any means at their disposal.

In summary, all three special education officials were unanimous in their desire to implement and said they were ready to do whatever was necessary to achieve implementation.

Agreement on the desirability of model implementation was not universal, however. The Assistant Superintendent of Administration Services expressed doubts as to the value of the model to Special Education in Nevada and the need for almost all data elements. Since the functions of that organization include forms design, data collection at state level, and use of data processing by the Department of Public Instruction, his cooperation is critically needed to make the project function.

VI. ADDITIONAL FACTORS

Nevada consists of 17 counties which are also the local school districts. Two of these 17 counties contain the majority of the state's population and over 80 percent of the identified handicapped child population. Both of these counties, Clark and Washoe, are staffed with special education directors and Washoe has a coordinator as well. The task of implementing the data flow to the state level will be considerably facilitated by the aggregation of individual school data at the county level, the few counties involved, and the favorable attitude of, at least, the more populous counties.

The State of Nevada reimburses the local districts for a handicapped child more than 2½ times the amount for a nonhandicapped child. However, there is a limit imposed on the number of handicapped children the state will reimburse for this extra amount. The limit legislated in July of this year is 2½ percent of child population. As an apparent result some of the school districts limit the number of handicapped children reported. Only three counties have all the handicap programs provided in Nevada.

The size of the special education program is limited. As previously noted there is one state professional assigned special education responsibilities. The enrollment for 1969-70 school year in all reported schools is less than 3,000 special education pupils.

VII. RECOMMENDATIONS

The following recommendations would, upon implementation, provide for the information flow of data elements necessary to Manpower Requirements Projection Model utilization and improve the quality and quantity of information available for special education program management.

To achieve basic implementation of this model in the State of Nevada it is recommended that:

1a. A supplementary monthly enrollment and attendance report, similar to Speech Supplementary Report, ED/A-2, be developed in conjunction with the Division of Administrative Services and Department of Special Education to include the following:

—handicap conditions for all handicaps recognized in Nevada

—type of school—special, elementary, secondary

—age or birthdate

—educational program

—date entered special education/therapy

—source of entrant, out-of-state, recently diagnosed

—date terminated special education/therapy

—reason for termination, improvement, relocation, disinterest, mortality.

b. The supplementary ED/A-2 should be used to collect data in the same manner as ED/A-2 form for the public schools and in addition include the mental retardation institute. Although the model only requires enrollment data at beginning of school year and changes to enrollment by either entrance or attrition at year end, the above suggested forms will probably be required by Division of Administrative Services monthly for reimbursement purposes.

2a. A waiting list form be developed in conjunction with Special Education to secure number of children awaiting enrollment, by age, and handicap and type of placement (educational program) recommended.

b. This form be sent to county education departments for completion and then be returned to the state along with September enrollment forms only.

3a. A form for information on those diagnosed as needing special education be developed to include age and handicap(s) certified.

b. This form be sent at year end to the diagnostic team in each county to complete and return to the state.

4. Child population projections be made annually by single year of age from birth to 21 years of age for 10 years in the future.

5. The mix of enrollments by educational program be projected by Consultant for Special Education based on historical enrollment patterns and policy changes or other factors that would affect emphasis on educational programs.

To achieve improvement of quality and quantity of information developed the following considerations are offered:

1. The existing and proposed forms will provide the data required by the Manpower Requirements Projection Model. However, the reliability and consistency of the data may be improved if the personnel completing the form have some additional guidance and reinforcement. This may be accomplished in several ways:

    a. Prepare user instructions for the completion of the forms recommended. Fxplain the need and purpose of the data in addition to defining the terminology.

    b. When visiting the local districts and conducting workshops, discuss the forms and their use. Also discuss the model and its benefit to the state and local special education.

2. The current prevalence rates should be reviewed to determine if they reflect the state experience and

modified as required based on experience and state studies.

The information system should result in successive improvements in the completeness and the accuracy of the data elements over time, with such validity being achieved within a few years at the most. Later documents pertaining to this project contain more information about methods which may be used to estimate some of the data elements until a good information flow is developed and validated.

VIII. RESOURCE REQUIREMENTS—MANPOWER

The one consultant for Special Education at state level in Nevada will require assistance in implementing the recommendations made in Section VIII. In addition to the cooperation and assistance of the various agencies at state and local level who will be involved in implementing the operating the Manpower Requirements Projection Model, systems analysis capability will be required in both phases. This talent is required at the time of implementation to aid in forms design and modification and in system design and programming. In addition, the systems analyst(s) should assist in training state and local personnel, procedures writing and technical coordination among the various groups exchanging data and results. A systems analyst will require approximately 3 months to effect the recommendations necessary for implementation phase. In addition, the services of the special education staff for 4 man-months, a forms designer for 1 man-month, and a programmer for 1 man-month will also be required.

During the operation of the system, once system implementation is achieved, the systems analysis capability will again be required to verify the systems design, perhaps to refine and improve and data flow design, and to update the training of the state special education personnel. This effort will require approximately one man-week of system analyst time and 1 man-month of special education staff effort annually.

A possible source of this systems analysis talent is the Central Data Processing Center but more likely an outside contractor will be required.

X. PERSONS INTERVIEWED

The persons interviewed by the Operations Research, Inc. (Leasco) representative, Mr. Joseph Kelly, during the week of 10 November 1969 were:

Mr. Larry Davis	Consultant, Exceptional Pupil Education
Mr. Lincoln W. Liston	Assistant Superintendent, Division of Administrative Services, Department of Public Instruction
Dr. Thomas Linde	Chief of Bureau of Mental Retardation, Nevada State Hospital
Mr. Roy Berry	Director of Special Education, Washoe County
Mr. Jerry Myers	Coordinator of Special Education, Washoe County
Mr. Jack Christianson	Data Processing Coordinator for Department of Education, Central Data Processing

XI. CURRENT REPORT FORMATS

Included in this section are the existing forms being used in Nevada for collecting information that is pertinent to the needs of the model as described in the preceeding sections.

ED/A5 — Pupil Attendance and Enrollment Report

ED/A2 Supplementary — Washoe County School District Supplementary Report On Speech Therapists

ED A-2 Elem.
9-67

MONTHLY ENROLLMENT AND ATTENDANCE REPORT FOR ______________________ ELEMENTARY SCHOOL, ______________ County, Nevada

________ Month, From ____________, 19____ To ____________, 19____.
1st., 2nd., etc.

No. of Days Taught ________
No. of Days Not Taught ________

Grade or Other Pupil Category	ENROLLMENT INFORMATION Enrollment at End of Prior Month		E's This Month		R's This Month		Total Pupils Accounted for		W's This Month		Net Enrollment End of This Month		ATTENDANCE INFORMATION Total Days Present	Total Days Absent	Total Days Present & Absent	Total Days Not Enrolled	A.D.A.
	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS					
Kindergarten TOTAL																	
First Grade TOTAL																	
Second Grade TOTAL																	
Third Grade TOTAL																	
Fourth Grade TOTAL																	
Fifth Grade TOTAL																	
Sixth Grade TOTAL																	
Seventh Grade TOTAL																	
Eighth Grade TOTAL																	
Emotionally Disturbed TOTAL																	
Hard-of-Hearing TOTAL																	
Mentally Retarded TOTAL																	
Orthopedically Handicapped TOTAL																	
Speech Correction TOTAL																	
Visually Handicapped TOTAL																	
Homebound TOTAL																	
* TOTALS													*	*	*	*	*

(REPRODUCED FROM STATE FORM)

*Amounts in the "TOTALS" spaces are not to include kindergarten totals.

Submitted By: ______________________
Signature of Principal or Superintendent

ED A-2 Special
9-67

MONTHLY ENROLLMENT AND ATTENDANCE REPORT FOR ____________________ SPECIAL SCHOOL, __________________ County, Nevada

__________ Month, From __________ , 19____ To __________ , 19____ .
1st., 2nd., etc.

No. of Days Taught ________
No. of Days Not Taught ______

Grade or Other Pupil Category	ENROLLMENT INFORMATION Enrollment at End of Prior Month		E's This Month		R's This Month		Total Pupils Accounted for		W's This Month		Net Enrollment End of This Month		ATTENDANCE INFORMATION Total Days Present	Total Days Absent	Total Days Present & Absent	Total Days Not Enrolled	A.D.A.
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls					
Emotionally Disturbed TOTAL																	
Hard-of-Hearing Deaf TOTAL																	
Mentally Retarded EMR TMR TOTAL																	
Orthopedically Handicapped TOTAL																	
Speech Correction TOTAL																	
Visually Handicapped TOTAL																	
Children Detained in Detention Homes TOTAL																	
Homebound TOTAL																	
TOTAL																	

(REPRODUCED FROM STATE FORM)

Submitted By: ______________________________
Signature of Principal or Superintendent

ED A-2 Sec.
?-67

MONTHLY ENROLLMENT AND ATTENDANCE REPORT FOR ______________________ SECONDARY SCHOOL, ______________________ County, Nevada

__________ Month, From __________, 19____ To __________, 19____.
1st., 2nd., etc.

No. of Days Taught __________
No. of Days Not Taught __________

ENROLLMENT INFORMATION													ATTENDANCE INFORMATION				
Grade or Other Pupil Category	Enrollment at End of Prior Month		E's This Month		R's This Month		Total Pupils Accounted for		W's This Month		Net Enrollment End of This Month		Total Days Present	Total Days Absent	Total Days Present & Absent	Total Days Not Enrolled	A.D.A.
	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS					
Seventh Grade																	
TOTAL																	
Eighth Grade																	
TOTAL																	
Ninth Grade																	
TOTAL																	
Tenth Grade																	
TOTAL																	
Eleventh Grade																	
TOTAL																	
Twelfth Grade																	
TOTAL																	
Emotionally Disturbed																	
TOTAL																	
Hard-of-Hearing																	
TOTAL																	
Mentally Retarded																	
TOTAL																	
Orthopedically Handicapped																	
TOTAL																	
Speech Correction																	
TOTAL																	
Visually Handicapped																	
TOTAL																	
Homebound																	
TOTAL																	
TOTALS																	

(REPRODUCED FROM STATE FORM)

Submitted By: ______________________________
Signature of Principal or Superintendent

ED/A-5
Rev. 9-67

NEVADA PUBLIC SCHOOLS

PUPIL ATTENDANCE AND ENROLLMENT REPORT

County..........

School..........

Grade or
Other Pupil Category..........

Complete the reverse side of this form first.

At the end of each school month, the line of this form for that month is to be completed for the group of pupils identified above. Information entered on this form for each month is to be transferred onto the monthly enrollment and attendance report, (ED/A-2), of the school identified above.

SCHOOL MONTH Opening Date—Closing Date	1 Total Enrollees Accounted for	2 Number of Days Taught	3 Number of Days Not Taught	4 Total Days Present	5 Total Days Absent	6 Total Days Present and Absent	7 Total Days Not Enrolled	8 Average Daily Attendance
1st — / /6 — / /6								
2nd— / /6 — / /6								
3rd — / /6 — / /6								
4th — / /6 — / /6								
5th — / /6 — / /6								
6th — / /6 — / /6								
7th — / /6 — / /6								
8th — / /6 — / /6								
9th — / /6 — / /6								
10th — / /6 — / /6								
TOTALS	X X X X X							

(REPRODUCED FROM STATE FORM)

Total Enrollees accounted for (column 1) is the sum of "net enrollment at end of previous month" and the E's + R's of the current month.
A.D.A. (column 8) is obtained by dividing total days present (column 4) by number of days taught (column 2).

....
Teacher, Principal, Superintendent

ED/A-2 Supplementary

WASHOE COUNTY SCHOOL DISTRICT

Supplementary Report of Speach Therapists

Statistical Month ________ Kdgr ________ Elementary ________ Secondary ________

Approved by Principal ________ School ________ Therapist ________

Name of Student (Last Name First)	Grade Ascending Order	Boy	Girl	Date Entered Therapy	Date Completed Therapy	1st Week Date of Therapy	2nd Week Date of Therapy	3rd Week Date of Therapy	4th Week Date of Therapy	A.D.A
Total										

TABLE 1

SUMMARY OF DATA DEVELOPMENT STATUS

NEVADA

DATA ELEMENTS			PUBLIC AND SPECIAL SCHOOLS			MENTAL RETARDATION INSTITUTE		
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Only for speech	Use a supplementary ED/A-2 similar to one for speech but broaden its scope for all handicaps	Public or special schools	Not available	Use a new supplementary ED/A-2 form	Chief of Bureau of Mental Retardation
		HANDICAPPING CONDITION	Reporting on ED/A-2 form does not include all handicap groups			Not available		
		EDUCATION PROGRAM	Only mixed and supplemental reported			Not available		
	ON WAITING LIST	AGE	Not available	Develop new form	Counties or schools	Not available	Use same new form proposed for public and special schools	Chief of Bureau of Mental Retardation
		HANDICAPPING CONDITION	Not available			Available and limited to severely and profoundly retarded		
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available	Develop new form	Local diagnostic team	Not applicable		
		HANDICAPPING CONDITION	Not available			Not applicable		
	INTRA-STATE TRANSFERS	AGE	Not available	Can be collected on proposed monthly supplementary ED/A-2 form or proposed modified year-end ED/A-5 form	Public or Special Schools	Not applicable		
		HANDICAPPING CONDITION	Not available			Not applicable		
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Not available		Public or special schools	Not applicable		
		HANDICAPPING CONDITION	Not available			Not applicable		
		REASON	Not available			Not applicable		
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			NO REGULAR PROJECTING; A ONE-TIME PROJECTION MADE OF SCHOOL AGE CHILDREN FOR SPECIAL PROJECT					
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Not available	Develop by state analysis	State consultant	Not applicable		
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Available in state policy			Available		
		EDUCATION PROGRAM	Available in state policy			Available		
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Collected twice yearly by Consultant for Special Education			Not available	Use same form used for public and special school teachers	

NEW HAMPSHIRE STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

NEW HAMPSHIRE STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of this Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of New Hampshire and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

Within the Department of Education, Division of Vocational Rehabilitation, Special Education Consultants (2) are responsible for state-level administration of special education programs in public schools, as well as approval of special education programs in private schools. Data on children enrolled in special education programs is currently available at the state level, and data on children diagnosed but not yet enrolled in programs, children newly diagnosed as handicapped, and children terminating from programs each year can be obtained from public school programs in the future through the Annual Census of Handicapped Children,which Special Education has developed and implemented in the state. This Annual Census is fairly comprehensive and flexible in the way it can be used, and provides an excellent foundation for an information flow system for special education programs in the state.

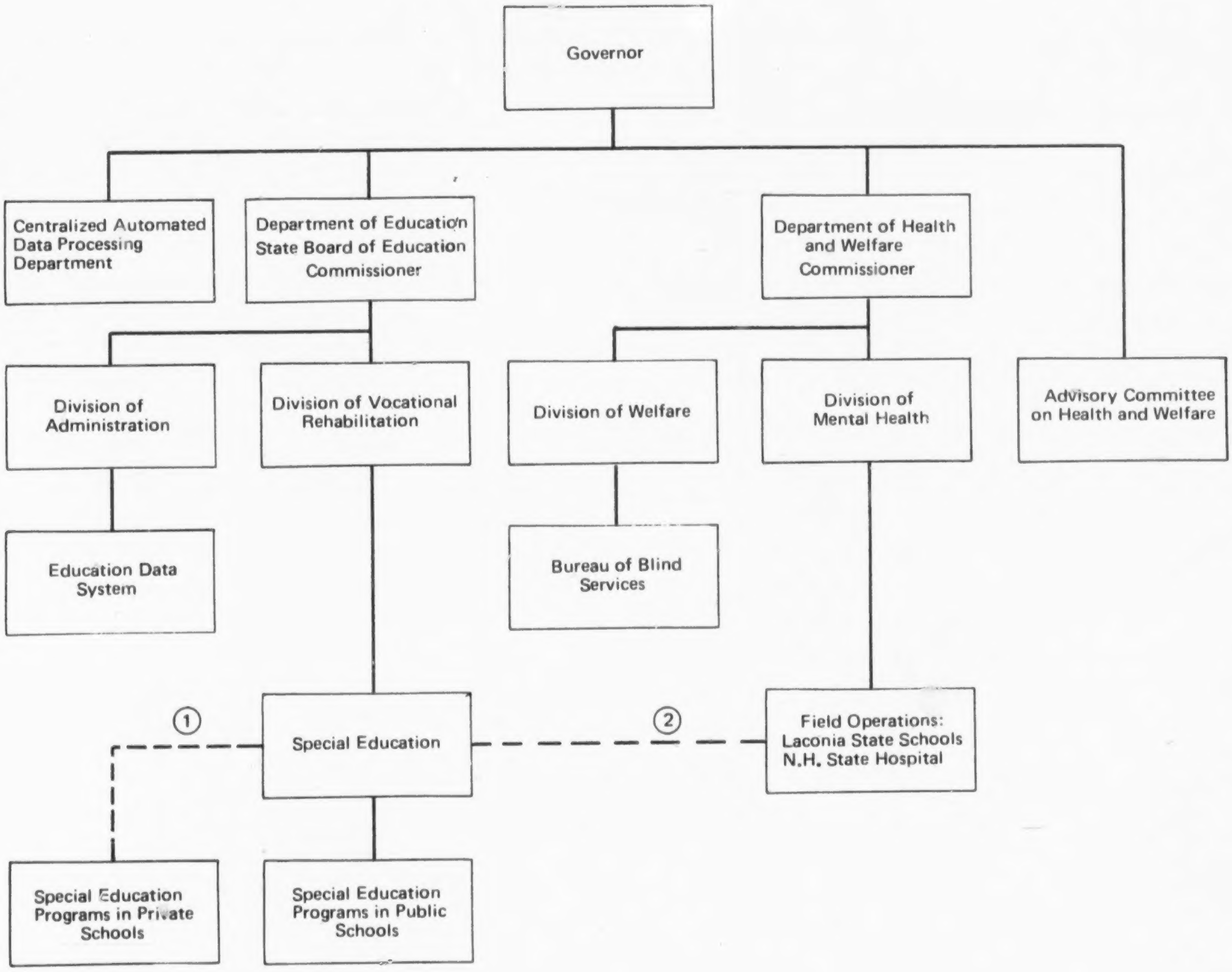
In addition to public and private school programs, the Department of Health and Welfare also administers special education programs in two residential facilities in the state: Laconia State School and Training Center and New Hampshire State Hospital. Data on program operations is available to Special Education through direct contact with each of these programs, and the good working relationship between Special Education and these facilities ensures good cooperation for model application.

The final selection of a data processing facility to support model application will be made following specific information on timing of model implementation in the state. There are a number of data processing facilities that could be utilized by Special Education, depending upon when actual model implementation will take place.

The Special Education personnel contacted were very enthusiastic about the Manpower Requirements Projection Model concept and are eager to obtain and utilize the model. Special Education is willing to develop the input data needed for the model. It appears, however, that data development and model implementation and operation, in the absence of additional staff support to Special Education, will be difficult to schedule by current Special Education staff, working under time constraints which are already severe.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The responsibility for the education of handicapped children in New Hampshire is illustrated in the informal organization chart shown in Figure 1. In New Hampshire, all public school education is administered by the Department of Education, headed by a Commissioner. The Commissioner is responsible to the State Board of Education — members appointed by the Governor of the state.


Governor
Centralized Automated Data Processing Department
Department of Education State Board of Education Commissioner
Department of Health and Welfare Commissioner
Division of Administration
Division of Vocational Rehabilitation
Division of Welfare
Division of Mental Health
Advisory Committee on Health and Welfare
Education Data System
Bureau of Blind Services
①
Special Education
②
Field Operations: Laconia State Schools N.H. State Hospital
Special Education Programs in Private Schools
Special Education Programs in Public Schools

Notations
1. Private Schools Submit Program Applications for Review and Approval
2. Liaison for Special Education Program Data

FIGURE 1. ORGANIZATION OF STATE AGENCIES PROVIDING SPECIAL EDUCATION IN NEW HAMPSHIRE

Within the State Department of Education are four major Divisions: Administration, Vocational-Technical Education, Instruction, and Vocational Rehabilitation. Each major area of activity within each division is headed by a Consultant. Within the Division of Vocational Rehabilitation there are two Consultants responsible for Special Education. These Consultants administer, at the state level, all special education programs in the local public schools. They relate to the special education programs and personnel through the local Superintendents. Public school education at the local level is now organized into Supervisory Unions, made up of from 1 to 12 towns, each having its own school board. There are also Cooperative School Districts and Area Schools which further pull together small local programs into more manageable systems.

Private schools offering special education in New Hampshire must also relate to Special Education at the state level each year, in order for the Consultants to review and approve the programs provided at the schools. Other than this approval requirement, the private schools operate independent of public school administration.

Data processing support for Special Education is currently provided by the Division of Administration, Education Data Systems. Certain enrollment and census data is being keypunched and printed out for Special Education. Additional data processing support needed for model application will probably be provided, at least in part, by this facility. The Centralized Automated Data Processing Department, now being developed at the state level to serve all agencies, will probably coordinate much of the data processing support required by Special Education in the future.

In addition to the Department of Education, the Department of Health and Welfare, headed by a Commissioner and supported by an Advisory Commission, is also administering special education programs in New Hampshire. Health and Welfare is also made up of divisions for major areas of activity. Within the Division of Mental Health are the field operations—the Laconia State School and Training Center (for mentally retarded) and the New Hampshire State Hospital (for emotionally disturbed). Both of these facilities provide special education services for children in residence.

Other supportive services to handicapped children are provided by the Department of Health and Welfare, including the Bureau of Blind Services, which provides financial support and placement for blind children in schools. No other direct special education programs are provided, however.

IV. DATA ELEMENT EVALUATION

Enrollment

For special education programs operating in local public schools, as well as approved programs operating in private schools, data on children enrolled is currently received by Special Education. Parochial schools do not submit data on programs, in that most of their handicapped children are sent to public school programs, and no state approved programs are operating in parochial schools.

Special Education in New Hampshire is divided into three major areas: intellectually handicapped, emotionally disturbed, and physically handicapped.

Enrollment data for intellectually handicapped pupils is currently received on Form A 131, Receiving Report on Intellectually Retarded Pupils (see Section X, page D29-19, of this report). This form is received from each district and private school at the end of each school year. It lists the name and age of each child enrolled, and IQ score, as well as other data needed on each child. The type of educational program can be determined by examining the type of school submitting the report (e.g., public schools conduct day special programs; private schools are special school programs). The data on intellectually handicapped is now being keypunched from this form (by Division of Administration, Education Data Systems), and so printouts of enrollment by age, handicap (using IQ score to determine EMR and TMR levels), and educational program should pose no problem for Special Education.

Enrollment data from public and private school programs serving emotionally disturbed and physically handicapped children is also received each year by Special Education. There are very few programs operating in these handicap areas, and so data reported to the state level is not now being key punched. No standardized form is used to report on these programs; however, all schools must list the names of the children enrolled, number of days attended, and some financial data. While type of handicap and educational program can easily be determined, year of age is not now requested by Special Education; but this item could be added to the data requested. To back this up, Special Education does maintain a file folder on each child enrolled in a private school program, and has access to similar folders maintained at the local schools for each child enrolled in a public school program. Age, handicap, and educational program could be double-checked, if necessary, using the data contained in these file folders.

For each child enrolled in a program of homebound instruction, Special Education receives each year a Report of Physically Handicapped Pupils Receiving Home Instruction (see Section X, page D29-20, of this report). This form contains year of age and handicap of each child served, and this data can easily be tabulated by Special Education.

Unserved Handicapped Child Population

The Annual Census of Handicapped Children is conducted each year in New Hampshire public schools. Data is collected in each school district by local personnel, forwarded to the Supervisory Union level where it is compiled for the total Union, and then forwarded to Special Education at the state level. The data is then key punched by Education Data Systems, and printouts listing all handicapped children reported by district are returned to Special Education. These printouts are, in turn, sent back to the appropriate Supervisory Unions where they are checked for accuracy, updated for the next year, and returned again to Special Education as part of the Annual Census procedure.

As new children are identified as handicapped by a district during the year, they are reported (listed) on a form entitled Handicapped Children Not Previously Reported. This form accompanies the Census data which the district submits to the Supervisory Union. These forms are then included with the Census data for the Union when it is sent to Special Education, and the names listed on the forms are key punched and added to the printouts (rosters) of handicapped children in each district. (Examples of forms used in Census are contained in Section X, pages D29-21, 22, 23, 24, of this report.)

The data recorded for the Annual Census includes the following items for each child:

- Name
- Sex
- Date of birth
- Handicap (code)
- Instruction (code).

By utilizing the instruction codes (which indicate whether a child is enrolled in a special education class or program), the data processing facility can provide Special Education with printouts of children, by age and handicap condition, who are not yet enrolled in a special education program.

In addition, Special Education is already receiving waiting lists of handicapped children from private schools each year. A complete summary work-up of each child waiting for enrollment is on file at the state level. This contains age, handicap condition, test results, etc., and this data can easily be tabulated by Special Education for inclusion in the Manpower Requirements Projection Model. 1/

Incidence data on handicapped children identified by public schools may also be obtained through this Annual Census of Handicapped Children. By tallying the number of children reported to the state level on the forms entitled Handicapped Children Not Previously Reported, Special Education can determine new entrants to the handicapped population, by type of handicap and single year of age (which may be converted to educational level of children).

In addition, private schools providing special education may be asked, by Special Education, to keep a record of the number of children newly diagnosed as handicapped each year, and supply this information to Special Education for inclusion in the projection model.

With regard to the number of handicapped children not yet identified but believed to exist in New Hampshire, no special studies have been done to determine this total handicapped population. Special Education uses the national

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1/ Special Education Consultants report that they will probably include children enrolled in homebound instruction programs as being on a waiting list for special education, in that the homebound programs generally do not provide enough service to impact upon the child's educational development.

prevalence rates for handicaps and provides these rates to each district (as part of the Annual Census effort) to enable the districts to compare their incidence rates with the national prevalence rates. Because more appropriate personnel will be involved in the Annual Census this year, it is anticipated that significantly larger numbers of children will be identified as handicapped. With more accurate census data forthcoming, Special Education will be in a position to modify or verify the national prevalence rates each year for the state of New Hampshire. Each successive year's data should bring the state closer to accurate rates.

Attrition

There is currently no data on attrition from special education programs at the state level. Attrition data can be collected for public school programs through the Annual Census procedure described in the preceding section. Codes to indicate whether an attrition is due to mortality, return to regular education, transfer to other special education district in the state, or other reasons can be added to the instruction codes now used for the Census. At this point in time, names of children no longer enrolled in special education programs are simply crossed off the printout roster of names by the local personnel. This procedure could be modified so that, instead of crossing off the name, local personnel would simply cross off the previous code and replace it with the appropriate attrition code. The roster would be returned to Special Education as part of the Annual Census procedure, and by key punching the updated roster data, printouts could be obtained which would reflect the attritions, by reason, by handicap condition, and by year of age, for all public school programs.

Here again, attrition data for private school programs could be requested from each school on an individual basis. This could be reported by private schools along with the enrollment data which they now submit to Special Education.

General Population Projections

Data on the projected number of children in the general population of New Hampshire may be requested from the State Department of Resources and Economic Development, Division of Economic Development, Office of Planning and Research. While recent projection studies published by this office have not broken the state population down into single years of age (age ranges have been used), it is felt that this kind of data could be made available if needed by Special Education. Additional support in obtaining these projections could be obtained from the Educational Statistics section within the Division of Administration, Department of Education. While they now project public school population only, and not by single year of age, they would be willing to work with Special Education, perhaps in conjunction with the Department of Resources and Economic Development, to develop the needed projections.

Trends in Enrollments

Data to plot trends in enrollments in special education is now being received by Special Education for approved public and private school programs.

For each class to be offered each year, a form, Application for Approval of Special Classes and/or Programs for Handicapped Children (see Section X, p. D29-25, of this report), is submitted to Special Education by the Supervisory Union, local district, or agency planning to provide the class. On this form is listed the number of children enrolled, by handicap type, and the age levels of the children enrolled. The form also contains detailed information on curriculum content, auxiliary services, teacher preparation, etc. All of the information on the form is being key punched for Special Education, and so retrieval of the elements needed to examine trends in enrollments should not be difficult. Special Education has done some enrollment trend studies in the past.

Personnel/Pupil Contact Ratios

Special Education now publishes three basic guidelines for special education programs in New Hampshire:

- Standards for the Education of Intellectually Handicapped Children
- Standards for the Education of Physically Handicapped Children
- Standards for the Education of Emotionally Handicapped Children.

These standards contain information on the required class size, age range, teacher qualifications, etc., for programs for specific handicap types. These standards would be the source of personnel/pupil contact ratios used for the model.

Personnel

Based upon the Application for Approval form described above, Special Education maintains a listing of all approved programs and special education personnel in the public and private schools. Detailed information on certification, degree level, experience, etc., is not maintained by Special Education but is available, upon request, from the Teacher Education and Certification Office. This data on degree level, certification, etc., is now being set up for data processing and so should be readily accessible to Special Education in the near future.

State Residential School Data

Both of the special education facilities operated by the State Department of Health and Welfare expressed interest in the application of the Manpower Requirements Projection Model and willingness to cooperate with Special Education in the provision of data on their program operations.

The Laconia State School and Training Center provides special education for both educable and trainable mentally retarded children. The Director of Education and Training reported that much of the data needed by Special Education is already available in records maintained by the school, though it is not now compiled in the form needed for projection purposes.

Data available at the school, or which could be developed by the school, includes

- Number of children enrolled, by handicap type and single year of age.
- Number of children on waiting list for enrollment, by handicap type and single year of age.
- Number of children newly diagnosed as handicapped by the school, by handicap type and single year of age. This is not now being monitored, but it could be in the future. Laconia receives referrals from State Mental Health Clinics which screen children, send them to Laconia for more extensive diagnosis, if needed. Laconia then determines whether child is to be admitted. Total number diagnosed as handicapped by Laconia could be tallied during year.
- Attritions from the school program, by handicap type and single year of age. Good attrition records are now kept at the school, and so the reasons for attrition could also include transfer to another special education program within the state.
- Enrollment trend data on special education program. Because enrollment trend is computed from enrollment data that would be reported to Special Education, trend in program enrollment at Laconia could be plotted by either Laconia or Special Education.
- Personnel/pupil contact ratios for special education program. While no formal ratios are set, Laconia has established practical ratios which they would like to maintain.
- Types and numbers of personnel employed in special education program. Because of small staff, this information is readily available.

To facilitate the compilation of this data, Special Education could provide the Laconia school with forms and instructions which outline the specific data elements needed and the form in which they could be recorded.

The New Hampshire State Hospital in Concord provides special education for emotionally disturbed children through its Therapeutic Education Program. The Director of this program reported that the data that would be needed by Special Education for inclusion in the Manpower Requirements Projection Model is either available now or could be developed in the future. All data would have to be compiled in the form needed by Special Education, but this could be done. Data which could be supplied includes:

- Number of children enrolled, by handicap type and single year of age.
- Number of children on waiting list for enrollment, by handicap and year of age. These children are already in residence at the hospital but are not yet enrolled in the education program.
- Number of children newly diagnosed as handicapped, by type of handicap and year of age. The Director estimates that, with few exceptions, all children admitted to the hospital need special education. Number of children admitted to hospital each year would therefore be their best indicator of incidence.
- Attritions from the school program, by handicap and year of age. Good attrition records are maintained for the program, and reasons for attrition could be supplied. Transfers to other special education programs in the state would also be known.
- Trend of enrollment in program. This could be plotted by either the hospital program or Special Education when enrollment data is received.
- Personnel/pupil contact ratios. These have been established for the program.
- Types and numbers of personnel employed by program. Because of small staff, this information is readily available.

Here again, Special Education could provide the hospital program with the formats and instructions outlining the specific data needed and the form in which it could be recorded.

V. PROCESSING POTENTIAL

Hardware

Special Education is currently utilizing the services of the Division of Administration, Education Data Systems, for data processing of enrollment records and handicap census information. Education Data Systems houses IBM 402 unit record equipment. No computer is available at this facility. EDS does have a collator, reproducer, sorter, key punch, and verifier equipment, and so can process and tabulate data needed by Special Education for the projection model.

The state government is, however, in the process of setting up a Centralized Automated Data Processing Department which is intended to provide all data processing support needed by all state level agencies. A Director for this department is now on staff, and a new building is scheduled for completion by March 1971. If suitable rental space can be located in Concord, the computer will be ordered, and the Department will be functioning before this March 1971 target date. While the actual computer has not yet been selected, the Director explained that the machine will be large, at least 265K byte capacity, with disc file, tape file, and card reader and punching equipment.

Other hardware available to Special Education includes a GE 115 owned by the Department of Education, Technical and Vocational Institute in Concord. Although the GE 115 is probably too small to handle the projection model, the institute is interested in the model, and would be willing to work with Special Education on programming in FORTRAN, running the model itself (if machine can handle it), and providing whatever support is required in the data processing area.

The Department of Education, Division of Instruction, also has a terminal to the computer at Dartmouth College in Hanover. This terminal is used primarily for research projects within the Department. The Director of Research and Testing stated that if other computer facilities were not used by Special Education for the projection model, the facility at Dartmouth would probably be available through the present Department of Education arrangement with Dartmouth.

An IBM 360-40 at the University of New Hampshire in Durham is also available to the Department of Education. The University has offered to assist the state in the area of data processing, and has made its facilities available to the Department of Education in the past for various projects.

Because the new Centralized Automated Data Processing Department is viewed as the focal point for all state government data processing in the future, Special Education should probably approach this Department first with the projection model requirements. Even if the Department is not in full operation at the time of model implementation, it should still be relied upon to coordinate the data processing support required for the model. The Director stated that if CADP was not in operation when needed by Special Education, he would still see that the work was done, perhaps by an outside service bureau. It is likely that, at least in the interim, Education Data Systems could be used for tabulation of the data for the model. This data could then be provided to the computer facility selected by CADP and Special Education.

Personnel

Key punching and verifying services are currently provided to Special Education by Education Data Systems within the Department of Education. The Centralized Automated Data Processing Department is now hiring staff for their facility, and systems analysts, programmers, and key punchers will be available to Special Education for model implementation and operation. In addition, the staff, and possibly some students at the Technical and Vocational Institute, would be available to work with Special Education in programming and running the model.

Again, the provision of personnel to prepare input, operate system, and analyze output should be coordinated by the CADP Department at the state level.

Acceptance of Model Concept

The Special Education Consultants in New Hampshire are very enthusiastic about the capability of the Manpower Requirements Projection Model and are anxious to implement the model in the state. Because only two Consultants are responsible for the administration of all special education at the state level, they are eager to obtain and utilize whatever management and planning tools are available to aid them in increasing efficiency. Special Education is willing to develop whatever data is needed as input in order to utilize the model. And as described in the previous sections, other state level personnel in other Divisions are also interested in the model and willing to provide support to Special Education for model application.

VI. ADDITIONAL FACTORS

The State of New Hampshire currently employs two Special Education Consultants to administer all approved special education programs in the state. Normal administrative and record-keeping duties demand that almost all time of both Consultants be spent in the Concord office. Little time is available to the Consultants to make site visits to programs or classes operating in the state. While they are very eager to have the Manpower Requirements Projection Model for New Hampshire, the time involved in implementation and maintenance of the model will cut into time which is already at a premium. Additional personnel are needed now by Special Education and will be needed even more for model implementation and operation. (Even beyond the question of model application, additional personnel at the state level could have an impact at the local level, in that Consultants could spend time in the local school districts, organizing and developing programs to serve a greater number of handicapped children. One of the primary reasons for the Consultant's enthusiasm about the model is its capability to show the need for more programs in the state.)

The new Commissioner of Education in New Hampshire is apparently sensitive to the problems and needs of Special Education. His interpretation of legislation pertaining to special education has been consistent with recommendations on interpretation made to him by the Special Education Consultants. If the projection model could be used to document the need for new program development, this kind of information could be made available to the Commissioner, to better acquaint him with the need for expansion of services in the state.

Because no state funds are specifically allocated for training special education personnel in New Hampshire, the Federal funds that come into the state for this purpose, through PL 85-926, are extremely important to the continued development of services to handicapped children. Here again, Special Education is eager to obtain the projection model in order to accurately document the need for Federal funds for personnel development and training.

VII. RECOMMENDATIONS

The need for enrollment data on intellectually handicapped children in public and private school programs may be satisfied through the data collection procedure now in use. Because this data is being key punched, Special Education may request printouts of enrollment by handicap (using IQ score to indicate EMR or TMR), year of age, and educational program type (which aligns with type of school conducting program). Enrollment data on emotionally disturbed children and physically handicapped children may be obtained by adding year of age or birthdate to the list of items now requested from public and private programs in these handicap areas. Special Education already receives sufficient data to identify educational program and handicap types. Year of age data will complete the requirement. Enrollment data on residential school programs operated by the Department of Health and Welfare may be obtained from each of the schools by direct contact with them. (Special Education should provide each school with forms and instructions covering this and all other data elements requested.)

Data on children diagnosed as handicapped but not yet enrolled in an approved public school program may be obtained through the Annual Census of Handicapped Children. Printouts of specific instruction codes, which would indicate children waiting for a program, may be obtained from Education Data Systems. In addition, data now received on children served through home instruction programs will probably be included in the waiting list data, because Special Education would like to move these children into programs of more concentrated special education. Data on children not yet enrolled in private school programs is already received by Special Education and may be tabulated by Special Education for inclusion in the projections. Data on children waiting for enrollment in state-operated residential programs may be obtained on a request basis from each of the two schools involved.

The Annual Census of Handicapped Children may also be used to obtain counts of children newly diagnosed or identified as handicapped each year by public school programs. Special Education receives a form entitled Handicapped Children Not Previously Reported from each school district in each Supervisory Union. These forms may be tabulated upon receipt by Special Education, or a printout of the names reported on these forms, by handicap and year of age, may be requested from Education Data Systems. This latter approach should be considered first, in that the data on the forms will be key punched anyway, as part of the Annual Census procedure. In that no data is available from private schools on children newly identified each year, Special Education may ask these schools to begin to monitor this incidence, and report counts to Special Education each year. Because of their close working relationship with the private schools, Special Education anticipates good cooperation on this. Special Education may also obtain this incidence data from the two state-operated residential schools on the same individual request basis.

While Special Education does not now collect data on attritions from any programs, the Annual Census of Handicapped Children can be modified to provide this data on public school programs. With the addition of attrition codes to the current instruction codes, Special Education may obtain printouts listing the number of attritions, by reason, handicap, and year of age. Attrition data may be obtained from both private schools and state residential schools on an individual request basis.

Projections of the general child population in the state are not now being made by single year of age. This data may be requested from the State Department of Resources and Economic Development, Office of Planning and Research. While they now project population by age ranges, the single year of age data will have to be developed by them. Good cooperation with Special Education is anticipated.

Enrollment trends in public and private school special education programs may be plotted by Special Education based upon enrollment data now received on Application for Approval forms (as described in the previous Data Element Evaluation section). Trends of enrollment in state-operated residential schools may be plotted by the schools themselves or may easily be plotted by Special Education, based upon the enrollment data that will be sent to Special Education as part of the proposed information flow to support the model.

Personnel/pupil contact ratios have already been established by Special Education for approved public and private school programs in the state. These ratios appear in guidelines published by Special Education for each of the three major handicap areas. Contact ratios for the residential school programs operated under the Department of Health and Welfare have been established by each of these schools on an individual basis.

Data on the number and type of special education personnel employed in approved public and private programs is maintained by Special Education, based upon the Application for Approval form now in use. Detailed information on degree level, certification, etc., is being put on data processing by the Teacher Education and Certification Office and will be readily available to Special Education. Personnel data from each of the state residential programs may be obtained from these schools on an individual request basis (both schools having small staff size).

Because of the development of the Centralized Automated Data Processing Department at the state level, Special Education should consider utilizing this department to coordinate all of the data processing support needed for model implementation and application. This support would include hardware, systems analysis, programming, and possibly key punching. In that Education Data Systems now has the capability to key punch and tabulate the bulk of the input data for the model, the utilization of both facilities should be considered, at least on an interim basis. Even if the CADP Department does not have the hardware capability when needed for model implementation, the selection of an alternate hardware facility, to be used in the interim, should be made in conjunction with CADP, in order to ensure, as much as possible, future compatibility with the planned CADP equipment.

Because of the heavy workload already carried by the two Special Education Consultants, manpower and time necessary to develop the flow of needed data, as well as implement the model itself, will pose a difficult problem for Special Education. In terms of the maintenance of current services to special education programs, the Consultants are not now in a position to assume additional projects without affecting the quality of the current services. Additional professional personnel are apparently needed now by Special Education to enable the Consultants to devote more time to the improvement and expansion of programs in the state, rather than being restricted to the more routine administrative tasks. In terms of model application in the state, additional staff (at least one person) would also ensure that sufficient time could be spent in developing and maintaining the data flow from among the various state and private schools involved in special education.

Another alternative to be examined — one which might have a bearing on model implementation but not necessarily on the quality of special education services — would involve the assignment, by the Department of Education, or by the CADP Department, of a "systems liaison," a person who could work with Special Education to set up the necessary forms, instructions, reporting procedures, etc., and coordinate all of this with the data processing and hardware facilities selected. While this would facilitate model implementation, it would be considered a "second choice," compared to the addition of a full-time professional in special education, one who could work not only on systems application, but also on other administrative and technical tasks now handled by the Consultants.

VIII. RESOURCE REQUIREMENTS—MANPOWER

In light of the recommendations in the preceding section of this report, the manpower requirements for expansion and modification of the existing information flow system, and for implementation of the Manpower Requirements Projection Model, may be summarized as follows:

> Because of the on-going need for additional staff support within Special Education, the addition of a full-time Consultant-level position to Special Education would ensure that sufficient time would be available for implementation and continuing maintenance of the model, in addition to contributing to overall program improvement activities following the model implementation period. A minimum of 2 man-months of systems analysis, 2 man-months of special education staff effort, $\frac{1}{2}$ man-months for forms design and $\frac{1}{2}$ man-month for programming would probably be required for implementation (coordination of state-level agencies, coordination of various data processing facilities, systems design, forms design, procedure writing, etc.), and a minimum of 1 man-week of system analysis, and 1 man-month of special education staff effort per year would be required for maintenance.

If resources are not available for the support of such a position, system modification and model implementation will still require a minimum of 1 man-month of special education staff effort and 1 man-week of effort of a qualified systems analyst over a period of 12 to 18 months. System maintenance will require 1 man-month of combined effort per year. A minimum of $\frac{1}{2}$ man-month per year of clerical time will also be required for on-going maintenance.

IX. PERSONS INTERVIEWED

Manfred Drewski	Consultant, Special Education, Division of Vocational Rehabilitation, Department of Education, Concord, New Hampshire
Arthur Jillette, Jr.	Consultant, Special Education, Division of Vocational Rehabilitation
Fred Ayer	Director, Education and Training, Laconia State School and Training Center, Laconia, New Hampshire
Al Bickford	Director, Therapeutic Education Program, New Hampshire State Hospital, Concord, New Hampshire
Nellie Paine	Education Specialist, Bureau of Blind Services, Division of Welfare, Department of Health and Welfare
Carl Hecker	Supervisor, Education Data Systems, Division of Administration, Department of Education
Richard Hawes	Director, Centralized Automated Data, Processing Department
John Stohrer	Chief, Office of Mental Retardation, Department of Health and Welfare
Frances Howe	Administrative Assistant, Department of Education
Irene St. Gelais	Librarian, Department of Resources and Economic Development
Donald Randall	Director, Research and Testing, Division of Instruction, Department of Education
Robert Stocking	Professor, New Hampshire Technical and Vocational Institute, Concord, New Hampshire

X. CURRENT REPORT FORMATS

Form A 131, Receiving Report on Intellectually Retarded Pupils

Report of Physically Handicapped Pupils Receiving Home Instruction

Handicapped Children Not Previously Reported

Supervisory Union Handicapped Children Census

Local School District Handicapped Children Census

Example of printout form used in Annual Census of Handicapped Children

Application for Approval of Special Classes and/or Programs for Handicapped Children under Provisions of RSA 186-A: 1-13

FORM A 17I

NEW HAMPSHIRE STATE DEPARTMENT OF EDUCATION
VOCATIONAL REHABILITATION DIVISION
64 NORTH MAIN STREET
CONCORD 03301

Office Use District		
C	P	V

District, Public Ac
or Approved Private

RECEIVING REPORT ON INTELLECTUALLY RETARDED PUPILS
1968-69

Report on Pupils Who are RESIDENTS of the District of ____________________

Report ALL Pupils Enrolled in Special Class Approved for the Intellectually Ret
by the State Board of Education

Level of Instruction Covered by this Report ____________________

As of May 16, school was in session __________ half da

	Name of Pupil	Date of Birth	Full Scale IQ	Date Last Tested	Date Prior to May 16		Enrollme Record of Membershi
					Entered	Discharged	
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
	Total	XXXXXX	XXXX	XXXXXX	XXXXX	XXXXXXXX	

(REPRODUCED FROM STATE FORM)

Total Average Daily Membe	
All Pupils	
Eligible Pupils	

Tuition Rate $ ____________

____________ N.H. ____________ 1969 ____________
Superintendent of Schools or Prin

MFD:gas (1500)
4/8/69

D29-19

NEW HAMPSHIRE STATE DEPARTMENT OF EDUCATION
VOCATIONAL REHABILITATION DIVISION
64 NORTH MAIN STREET
CONCORD 03301

____________________ School District

REPORT OF PHYSICALLY HANDICAPPED PUPILS RECEIVING HOME INSTRUCTION

Prepare a Separate Report for Each Pupil

Name of Pupil ____________________ Age ____ Address ____________________

Physical Disability ____
(Disability which necessitates instruction be given at home)

Instructor Mr. Mrs. Miss ____________________ Hours/week of Instruction __________

1. Actual and/or anticipated expenditures for present school year

Salary $__________
Rate per hour (__________)
Travel $__________
Other (explain) $__________

Books and Instructional Material $____ ____
Home School Telephone ____

TOTAL $____

(REPRODUCED FROM STATE FORM)

2. Date which home instruction was started: ____

Actual or anticipated date on which home instruction was (will be) concluded for the school year: ____________________

3. In addition to being physically handicapped, is this pupil considered to be:

a) Intellectually Handicapped: Yes ____ No ____
b) Emotionally Handicapped: Yes ____ No ____
c) Multihandicapped (describe) ____________________

4. Has this child been given a Wechsler Intelligence Scale or Stanford-Binet by a qualified examiner? Yes ____ No ____ I. Q. Score ____ Date __________
Comments ____________________

5. What do you presently anticipate as the arrangements to be made for continuing education for this child in September of the next school year (regular class, special school, home instruction, etc.) How long do you expect these arrangements to be needed? ____________________

This is to certify that the information contained in this report was taken from official records and is complete and correct to the best of my knowledge and belief.

Date ____________________ Superintendent of Schools ____________________

AGJ:gas
5/1/69 (500)

D29-20

Supervisory Union #______________ Name of Local School District______________

HANDICAPPED CHILDREN'S CENSUS

HANDICAPPED CHILDREN NOT PREVIOUSLY REPORTED

INSTRUCTIONS: Use one of these report forms for each Local School District reporting new children. Insert name, sex, birthdate, handicap code, and institution code in the appropriate spaces. Include this report form with the corrected pre-printed roster and the Cover Sheet you are sending to your Supervisory Union Office.

Name of Child	Sex M-1 F-2	Date of Birth			Handicap Code	Type of Inst. Code
		Mo.	Day	Year		

(REPRODUCED FROM STATE FORM)

D29-21

SUPERVISORY UNION HANDICAPPED CHILDREN CENSUS

Supervisory Union #______________

COVER STATEMENT

INSTRUCTIONS: Supervisory Union Superintendents or their agents shall total the information presented on all local district cover statements, and insert these figures in the appropriate boxes on this statement. Perform the indicated calculations. When completed, forward one copy of complete list and Cover Statement from every district and this Cover Statement to Special Education, 64 North Main Street, Concord, New Hampshire 03301.

Summary of Handicapped Children in:____________________ as of October______________
(Supervisory Union Number)

(REPRODUCED FROM STATE FORM)

					Insert this figure in all boxes below	Union Incidence Figures	National Incidence Figures	
	1.	Total number of children residing in Supervisory Union			☐			
(Mentally Retarded)	2.	Total number of children in categories 1.10-1.20	☐	÷	☐	_____%	2.3%	Mentally Retarded
(Vision Impaired)	3.	Total number of children in categories 2.30-2.36	☐	÷	☐	_____%	.1%	Vision Impaired
(Hearing Impaired)	4.	Total number of children in categories 2.41-2.43 and 2.50-2.59	☐	÷	☐	_____%	2.0%	Speech and Hearing Impaired
(Learning Disabled)	5.	Total number of children in categories 2.84-2.86	☐	÷	☐	_____%	5.0%	Learning Disabled
(Emotionally Disturbed)	6.	Total number of children in categories 3.00-3.30	☐	÷	☐	_____%	2.0%	Emotionally Disturbe
(All Handicapped)	7.	Total number of children in all categories 1.00-5.60	☐	÷	☐	_____%	Not Determined	All Handicapped

The above calculation represents a summary of enclosed Handicapped Children's Census Data obtained from School Districts within my Supervisory Union. Information regarding children reported during the previous census period has been corrected, and information regarding children not previously reported has been added, to the best of my knowledge and belief.

____
Superintendent, Supervisory Union

____
Date

LOCAL SCHOOL DISTRICT HANDICAPPED CHILDREN CENSUS

Cover Statement

Supervisory Union #____________________

INSTRUCTIONS: Local School District officials or their agents shall make corrections, delections and additions to enclosed census materials. Follow each step in order, inserting information and performing calculations as requested. When completed forward Cover Statement and corrected listings to Supervisory Union Office.

Summary of Handicapped Children in: ______________________ as of October ____________
(Name of Local School District)

(REPRODUCED FROM STATE FORM)

	I Step			Insert this figure in all boxes below	Local District Incidence Figures	National Incidence Figures	
	1.	Total number of children residing in local district		☐			
(Mentally Retarded)	2.	Total number of children in categories 1.10-1.20	☐ ÷	☐	____%	2.3%	Mentally Retarded
(Vision Impaired)	3.	Total number of children in categories 2.30-2.36	☐ ÷	☐	____%	.1%	Vision Impaired
(Hearing Impaired)	4.	Total number of children in categories 2.41-2.43 and 2.50-2.59	☐ ÷	☐	____%	2.0%	Speech and Hearing Impaired
(Learning Disabled)	5.	Total number of children in categories 2.84-2.86	☐ ÷	☐	____%	5.0%	Learning Disabled
(Emotionally Disturbed)	6.	Total number of children in categories 3.00-3.30	☐ ÷	☐	____%	2.0%	Emotionally Disturbed
(All Handicapped)	7.	Total number of children in all categories 1.00-5.60	☐ ÷	☐	____%	Not Determined	All Handicapped

NOTE: Unless the Local District population exceeds 1,000 children, the National Incidence Figures will not be a truly valid basis for comparison. However, they should give a rough approximation of the number of children one might expect to find in each category within your school district.

The above calculation represents a summary of the enclosed Handicapped Children Census Data collected within this School District. Information regarding children reported during the previous census period has been corrected, and information regarding children not previously reported has been added to the best of my knowledge and belief.

____
Chairman of School Committee

____
Date

NAME OF SCHOOL DISTRICT

(EXAMPLE)

Name of Child	Sex M-1 F-2	Date of Birth Mo.	Day	Year	Handicap Code	Type of Inst. Code
″	1	06	23	58	519 1	10
″	1	08	22	61	529 1	90

[EXAMPLE OF PRINTOUT FORM USED IN ANNUAL CENSUS OF HANDICAPPED CHILDREN]

(REPRODUCED FROM STATE FORM)

Instructions: Check the enclosed names against your enrollment lists to be sure they are residents of your district. Check disability code for correctness. Correct and delete [illegible]ctly on this sheet. Report new students on enclosed blank forms.

New Hampshire State Department of Education
Vocational Rehabilitation Division
Special Education Section
64 North Main Street
Concord 03301

APPLICATION FOR APPROVAL OF SPECIAL CLASSES AND/OR PROGRAMS FOR HANDICAPPED CHILDREN UNDER PROVISIONS OF RSA 186-A:1-13

District, Supervisory Union or Sponsoring Agency:______________________

Submitted herewith (in duplicate) is an application for approval of a Special Education Class or Program for the Education of Handicapped Children for the 19___ - 19___ school year under the provisions of RSA 186-A:1-13. Complete one set of Forms for each class or program in operation.

1. Name of Special Class or Program:______________________

2. Type of handicap or handicaps served (primary handicapping condition):______________________ Age level(s):______________________

3. Name of School or Building(s) housing Special Class or Program:______________________

4. Address and telephone number of school or building:______________________

5. Class or Program description (Reminder! one form for each class. Extra lines provided for programs not restricted to typical "class" arrangement)

(a)

Special Education Teacher(s)	Total No. in Class or Program	Intellectually Handicapped		No. Emotionally Handicapped	No. Physically Handicapped		
		No. Educable	No. Trainable		Deaf	Learning Disabilities	No. Other*

*Specify

(b) Has the teacher(s) listed above been issued a teaching credential in Special Education by the State Department of Education? Yes___ No___. If "No", please indicate what steps are being taken in the way of preparation for the responsibility now assumed:______________________

(c) Does the class or program above enroll students other than those eligible for the class or program designated? Yes___ No___. If "Yes", please indicate the rationale for the placement:______________________

(d) Briefly outline the process of i ation and placement into the Special Education Clas

(REPRODUCED FROM STATE FORM)

(e) If students were tuition, what would be the tuition rate charged? $______________

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS

NEW HAMPSHIRE

DATA ELEMENTS			PUBLIC SCHOOLS			STATE INSTITUTE SCHOOLS			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Available at state level	Printouts received on retarded. Other handicaps tabulated manually at this time	Reports received each year from approved public and private school programs	Not now available at state level but may easily be obtained on request basis from each school	Forms and instructions may be provided to individual schools to obtain needed data	Individual schools now maintain this information. Would require tabulation by them	Annual reports received from approved programs for handicapped
		HANDICAPPING CONDITION							
		EDUCATION PROGRAM							
	ON WAITING LIST	AGE	Basic data now received at state level	Printouts of appropriate codes may be requested	Annual census of handicapped children				
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE		Manual tabulation or printouts of new children may be requested					May be requested from schools having approved programs
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	AGE	Can be developed	Addition of special codes to census instructions, and printouts of these codes may be requested					
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE							
		HANDICAPPING CONDITION							
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Not now done by single year of age	Special request	Dept. of Resources and Economic Develop.	☒	☒	☒	☒
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Available at state level	☒	Enrollment data now received	Not now available at state level but may easily be obtained on request basis from each school	May be plotted by school or by Special Education		May be requested from schools or plotted by Spec. Education
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP		☒	Standards for Education of Handicapped Children		Forms and instructions may be provided to individual schools		Personnel reported now. Ratios same as public school programs
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE				May also be available in printouts in future	Annual application forms. Also Teacher Certification Office				

NEW JERSEY STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

NEW JERSEY STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped, (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs on the basis of its individual educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, educational program mixes, child participation rates, or any combination of these variables.

Following the development of the model, each of the 50 state special education agencies was visited in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the potential for utilization of this model of state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The capability and desire of the special education staff to utilize the model.

This report presents the findings of the survey in the State of New Jersey and contains recommendations pertaining to the establishment of information flow procedures for model utilization and to the improvement of general information availability for special education program management. The status of data development is summarized in Table 2 at the end of this report.

II. SUMMARY

The special education data that exists at the state level in New Jersey is extremely limited. Furthermore, what is available is, with few exceptions, not in usable form, is not current, or is of questionable accuracy. However, the potential for development of the basic data elements required to use the Manpower Resource Requirements Model is very good. A reporting system is currently proposed for implementation within the Bureau of Special Education and Pupil Personnel Services which, with several additions and modifications, can effectively support the model.

In addition, proposals by private concerns have been submitted in response to a request by the Department of Education for the study and design of an Educational Management Information System. Although only in its first phase, the planned multiphase combination of efforts will result in total software and hardware procurement for the department. The scope of the planned effort, as expressed in the request for proposal, could easily encompass the model and its data flows. However, the timing of the phases is uncertain. If implementation of the required data flows for the model is undertaken soon, as it should be, the effort may not be advanced enough to provide support, at least in the initial stages of implementation.

The departmental data processing capability, which at the present does not fully satisfy the requirements of the model, resides in the Office of Statistical Services, Division of Administration. However, according to the coordinator, during the latter stages of implementing the Educational Management Information System, this situation will probably change.

Attitudes toward the model and its data flows appeared generally favorable, with few reservations being expressed. The cooperation offered during and subsequent to the visit was excellent.

In spite of the need for a considerable effort on the part of the Bureau, from the standpoints of both attitude and feasibility, the outlook for implementation of the flows for the basic data elements and the installation of the model in New Jersey appears very good. The availability of systems analysis capabilities will be of major importance to successful implementation of the model.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The primary state educational agency in New Jersey is the Department of Education, headed by the Commissioner of Education, who reports to a State Board of Education (see Figure 1) composed of twelve members who report to the governor. The commissioner has been given responsibility for education in free public schools and one special school, the Marie H. Katzenbach School for the Deaf.

The Department is organized into eight divisions. Most pertinent to the Manpower Requirements Projection Model are the Division of Administration, which provides statistics and data processing assistance to the Department through the Office of Statistical Services, and the Division of Business and Finance, which is a source of data useful to special education as a result of its compliance and reimbursement responsibilities.

In addition, within the Division of Curriculum and Instruction there is a Bureau of Special Education and Pupil Personnel Services, which would be the focal point for the use of the model. This bureau has been tentatively reorganized into the three offices shown in the organization chart shown in Figure 2. One of these proposed offices, Pupil Personnel Services, will have responsibility for the nine child study teams and other pupil services which are being redefined to possibly include guidance and health services. This redefinition has not been finalized because of changes in organization and responsibilities being made by the recent appointed deputy assistant commissioner. A second proposed office, Special Education Services, will have responsibility for the various handicapping conditions, which are in the process of being grouped for organizational purposes, and the 21 child study supervisors, one of which is assigned to each county office. The third office, Program Development and Evaluation, develops, evaluates, and coordinates state and Federally sponsored programs.

Other departments in New Jersey with educational or diagnostic responsibilities for handicapped children are the Department of Institutions and Agencies and the Department of Health. Only the portions of these departments which have pertinent functions are shown in Figure 3.

The Department of Institutions and Agencies encompasses the welfare programs and the mental, correctional, and welfare institutions with their associated out-patient and community services.

The Division of Mental Retardation of the Department of Institutions and Agencies is organized into programs, three of which are pertinent. The Residential Care Program provides education, training, therapies, speech and hearing services, and other activities for more than 2500 severely and profoundly mentally retarded in FY 69. The Purchase of Care program is available to mentally retarded individuals awaiting placement in a state facility. The Day Care Program is a community centered program designed to provide training and social adjustment to profoundly and severely retarded children of school

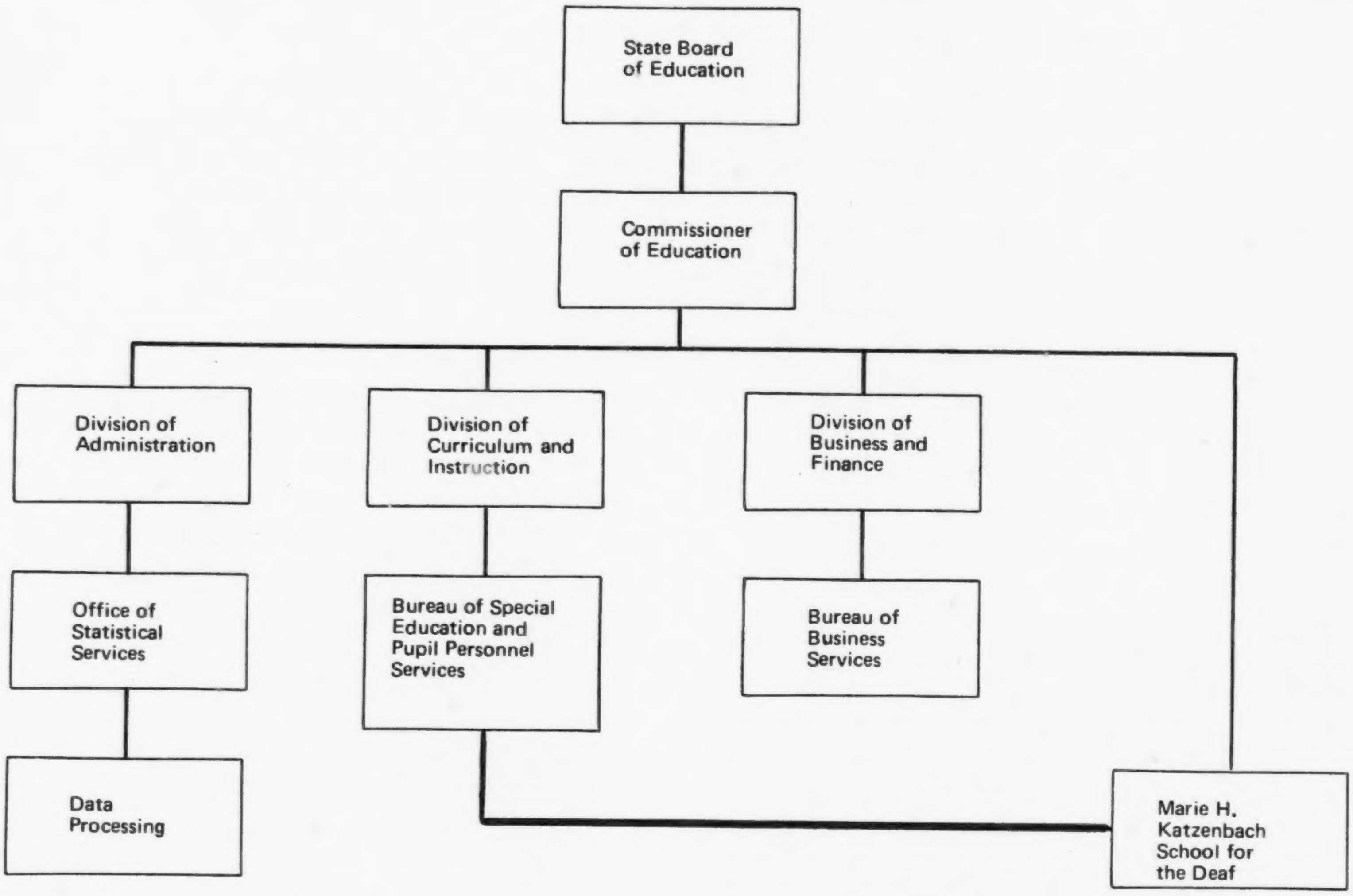
State Board of Education
Commissioner of Education
Division of Administration
Division of Curriculum and Instruction
Division of Business and Finance
Office of Statistical Services
Bureau of Special Education and Pupil Personnel Services
Bureau of Business Services
Data Processing
Marie H. Katzenbach School for the Deaf

FIGURE 1. NEW JERSEY DEPARTMENT OF EDUCATION (ABRIDGED)

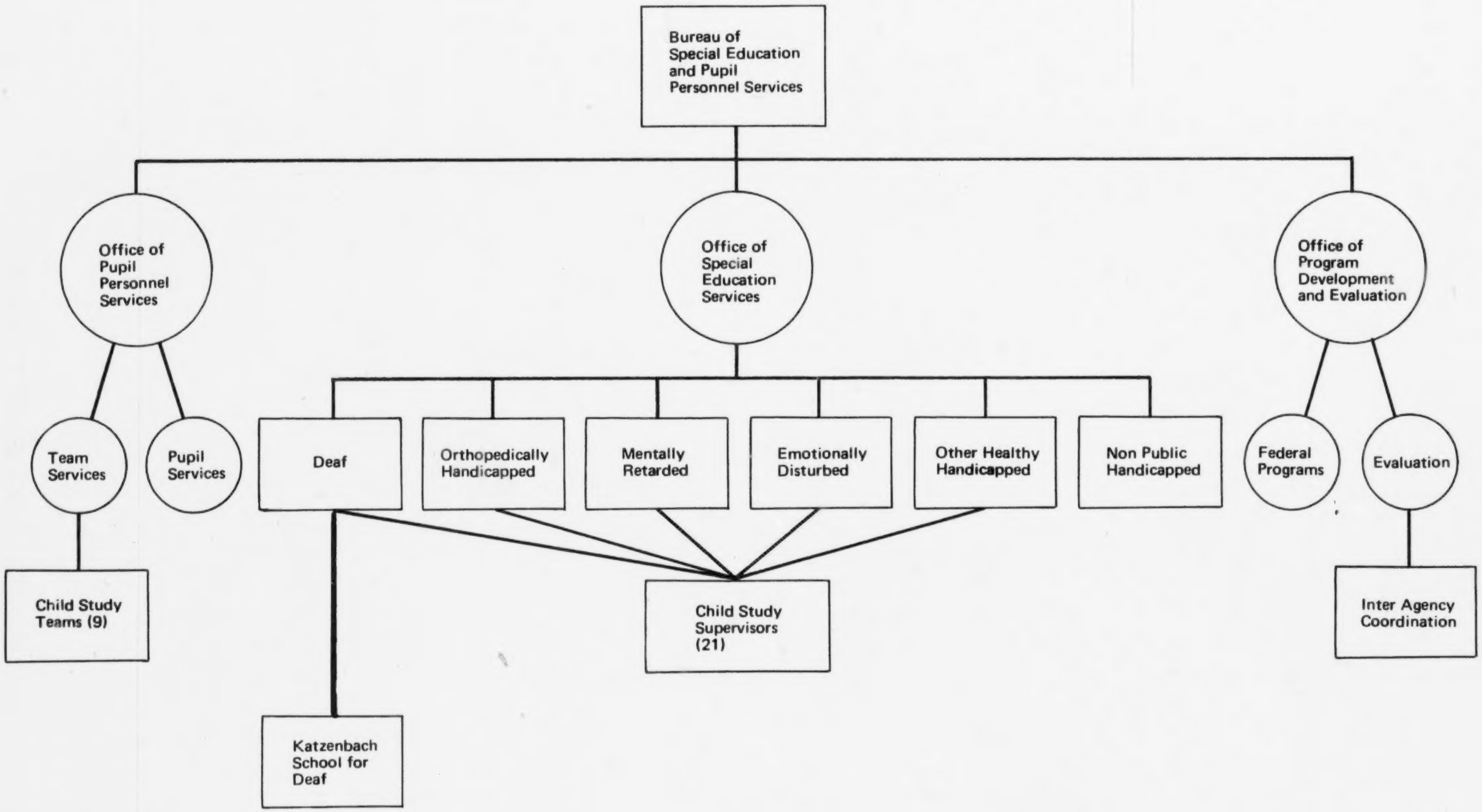
Bureau of Special Education and Pupil Personnel Services
Office of Pupil Personnel Services
Team Services
Pupil Services
Child Study Teams (9)
Office of Special Education Services
Deaf
Orthopedically Handicapped
Mentally Retarded
Emotionally Disturbed
Other Healthy Handicapped
Non Public Handicapped
Child Study Supervisors (21)
Katzenbach School for Deaf
Office of Program Development and Evaluation
Federal Programs
Evaluation
Inter Agency Coordination

FIGURE 2. BUREAU OF SPECIAL EDUCATION AND PUPIL PERSONNEL SERVICES

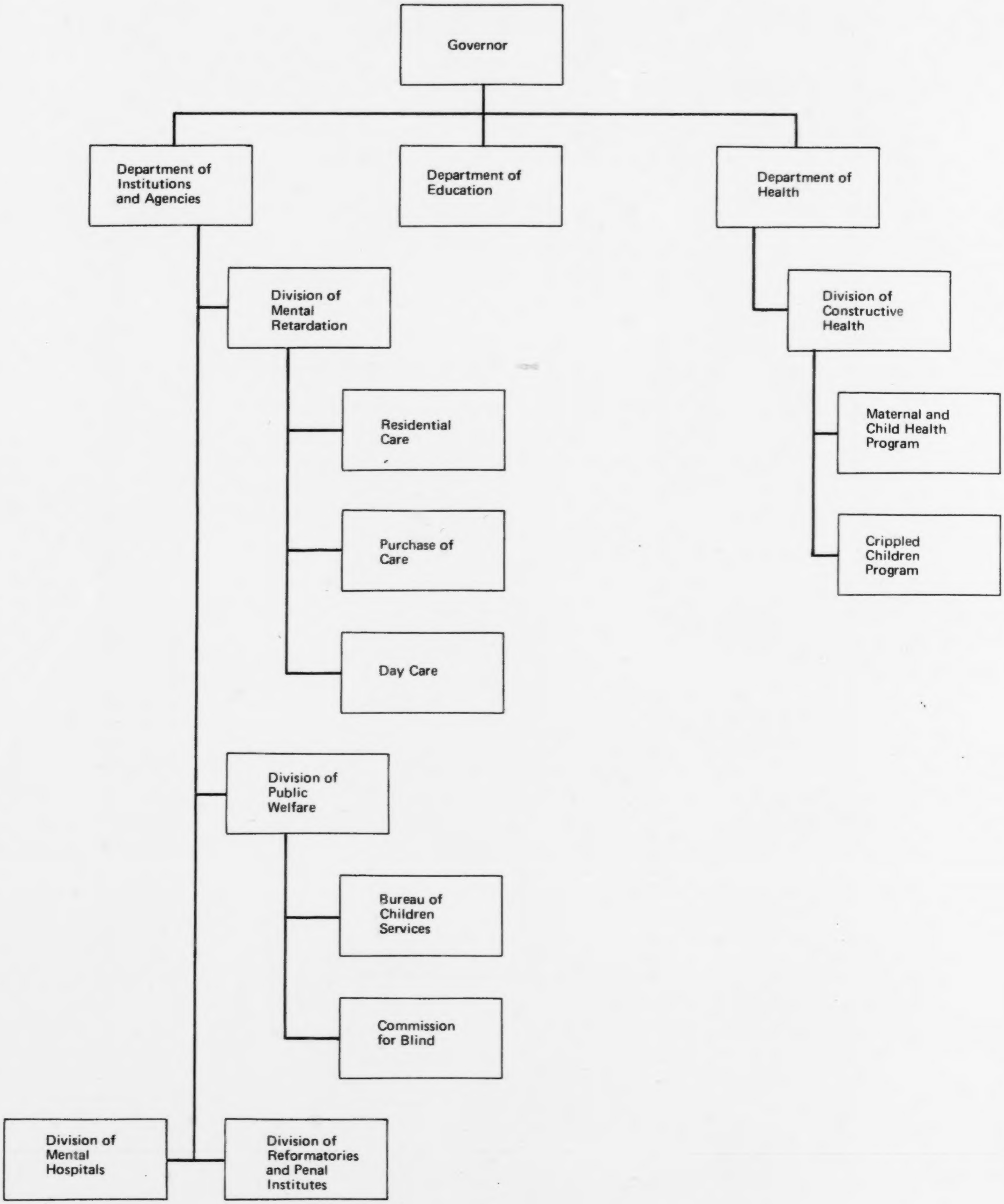
Governor
Department of Institutions and Agencies
Department of Education
Department of Health
Division of Mental Retardation
Residential Care
Purchase of Care
Day Care
Division of Public Welfare
Bureau of Children Services
Commission for Blind
Division of Mental Hospitals
Division of Reformatories and Penal Institutes
Division of Constructive Health
Maternal and Child Health Program
Crippled Children Program

FIGURE 3. NEW JERSEY STATE GOVERNMENT

age, who, classified as neither trainable or educable, have been excluded from participation in a public school program. It was estimated in 1965-66 that as many as 1200 children qualify for and are in need of a Day Care Program in addition to the approximately 276 who were being served.

The Division of Public Welfare, Department of Institutions and Agencies, is the New Jersey state agency assigned to administer public assistance programs to persons in need of financial aid.

The Bureau of Children's Services, Division of Public Welfare, arranges and assists in the diagnosing of some handicapped children and effects placement outside of the home, where necessary.

The Commission for the Blind, also within the Department of Public Welfare, maintains a program of education, vocational rehabilitation, and welfare for blind and partially sighted children under 14 years of age. Many of the children treated in this program for the visually deficient have other handicaps.

The Division of Reformatories and Penal Institutes provides educational and rehabilitation services at nine institutions for almost 2000 inmates deemed to be emotionally disturbed and/or socially maladjusted.

The last pertinent division in Department of Institutions and Agencies, the Division of Mental Hospitals, provides mental health services in seven hospitals and centers. Over 50 teachers provide courses for almost 900 patients classified primarily as emotionally disturbed.

The Department of Health has concentrated its services for the handicapped child in the Division of Constructive Health. One division activity is the Maternal and Child Health Program, which provides for a diagnostic evaluation and follow-up for the mentally retarded and/or physically handicapped, with particular emphasis on the pre-school child. These evaluations are performed at four diagnostic and evaluation centers throughout the state by a professional team consisting of various specialists. Another effort within the Division of Constructive Health, the Crippled Children Program, provides care and services to all handicapped children who might profit from rehabilitation.

Interdepartmental liaison between the Special Education Bureau and other agencies with special education responsibilities is assigned to the Program Development and Evaluation Office. In addition to the agencies or departments discussed above, this liaison responsibility extends to Vocational Education and Vocational Rehabilitation.

IV. DATA ELEMENT EVALUATION

A number of specific data elements are necessary to the use of the projection model. The information which these data elements provide may also be very useful to the Bureau of Special Education and Pupil Personnel Services for operational analyses. These data elements, their development, and their potential sources are discussed in the following paragraphs and summarized in Table 1 at the end of this report.

Enrollment

The enrollment data reported earliest in the school year—the total number of special education classes—is not subdivided according to handicap or any other factor. This information is gathered through the Division of Business and Finance "Application for State Financial Aid" (see Section X, page D30-20 to 22) on 7 October of each year. While valuable for reimbursement purposes, it is of little value in its present form in satisfying the data needs of special education.

Another source of enrollment information is the child study supervisor, located in each of the counties, who approves the applications (containing class and handicap data) for special education units and periodically submits the information to the Special Education Bureau. A summarization for 1968-69 classes was made in July 1969 and reconciled with Financial and Business Division data.

The actual number of special education students, classified by handicapping condition but ungraded in public schools, is collected by the Division of Business and Finance in its "Annual Report of Educational Statistics," (Section X, page D30-23 to 26). This report flows from the schools to the approximately 600 local school districts to the county level within ten days of the close of the school year. Similarly, a "Report of Resident Enrollment Statistics for School Year Ending June 30" is sent to the Division in early summer (see Section X p. D30-27 to 28). However, the data is not summarized and distributed until several months later. The 1968-69 school year enrollment was not totaled at the state level until November 1969.

The information on the approximately 1300 handicapped children supported in private schools is currently available at the state level, but on individual forms which make tabulations extremely difficult with methods presently available in the Bureau.

In the case of at least one state institution, the Katzenbach School for the Deaf, refined enrollment data is channeled to the Special Education Bureau on a regular basis. This is due in part to the unique relationship of the state school to the Department of Education and, more immediately, the recent emphasis given to the hearing impaired by the extensive Rubella Survey conducted in New Jersey.

The information on the hearing impaired collected by means of extensive canvassing of the state during the Rubella Survey has been developed into a data bank at the state level. The data bank contains information on an individual basis including type and degree of impairment, age, educational program, and disposition of cases. The form of the data bank is a set of index cards maintained by the state consultant for hearing handicapped. Tabulations are made by transferring the data on the index cards to tab cards and then using ADP equipment and printers for totals and printouts. Increased efficiency can be achieved by eliminating the index card step in the transferring of the information on the forms to tab card. The form can be designed to be key punched directly. The data can then be transferred via magnetic tape to the computer for the listings they need.

The data appears to be both comprehensive and reliable considering the extensive canvassing and follow-up devoted to this handicapped group.

After initial development of the data bank in early 1969, an effort was made to update in June. A form (see Section X, page D 30-29) was sent to all public and private programs to determine which children were remaining in the program in the fall and which were leaving and why. In September, enrollment data by individual was obtained from public schools, speech and hearing centers, and clinics by means of another form (See Section X, page D 30-30). It is the intention of the state consultant to update this data bank on the basis of the June and September data flows.* This recently implemented data flow for hearing impaired is ideal in view of both the timing and the data elements required by the model.

The best potential source of timely enrollment data for all conditions other than hearing impairment is the Proposed Special Pupil Census Report. This report is designed to cover enrollment in special classes and supplemental instruction in public schools, instruction in private schools, and home instruction. The data includes, among other items, birth date, handicapping condition, instructional level and educational program or placement. This proposed report would be sent by each of the 600 local districts to county superintendents' offices by 15 October, then to the internal service bureau by 30 October, with report summaries due in Special Education by 15 December. The 6 weeks allowed for processing this data should decrease substantially in succeeding years.

Waiting List

Waiting list data is virtually nonexistent, particularly for public schools. An exception are those children diagnosed as hearing impaired. Again as a result of the Rubella Survey, these children have been identified and their numbers tallied by age and placement or location. Whether the extent of the waiting list will be maintained is questionable due to the one time nature of the legislation and the survey. However, the tremendous impetus and awareness that has been developed in identifying hearing impaired children provide an ideal basis for maintaining a comprehensive hearing impaired waiting list.

Development of extensive waiting lists will be difficult due to lack of state influence in some regions and the effect of mandatory legislation. These factors are discussed in Section V. Even within the above constraints, the best source is still the chief school officer or his representative at the local level. The child study supervisors at the county level would provide a secondary source and possibly a check on the numerous local sources. The development of this type of data in the near future is considered improbable, primarily because of legal constraints.

Children Moving Into and out of Identified Handicapped Child Population

The responsibility for the referral, diagnosis, and placement of handicapped children is vested in the local school district, in particular the chief school officer. While there is no uniform procedure employed at the local level, the state has made recommendations and in some cases assists in diagnosis through the use of its own specialists at the county level.

The teams of specialists called child survey teams are encouraged to do psychological, medical, and educational "work-ups" on those children in the referral group who are most likely to be handicapped. Each school year, priorities are assigned to the referral group on the basis of a variety of handicap indicators. Due to limited resources, only a portion of the referral cases can be "worked-up" each year.

This procedure is by no means universal at the local or county levels. The child study teams and local diagnostic teams or individuals are the logical source for the number of newly diagnosed children in each exceptionality. Little data is believed to exist at the local level, so the development of this data element would require new recording and reporting procedures.

The impediment to the development of this newly diagnosed data at the state level is the lack of a comprehensive and consistent diagnostic system throughout the 21 counties. Some of the data could be developed in the near future, but this information would be sketchy.

The handicapped children entering New Jersey special education programs from another state can be collected from the proposed pupil census reports at the end of the year, when corrections are made to the printout returned to the local school districts for updating. Age would also have to be provided in this way.

The age, handicap, and reason for children's attriting from the special education programs can also be provided in the year end turnaround of the enrollment printout. The data is recorded by the teachers in their New Jersey School Register (Section X, page D30-31 to 34).

General Child Population Projections

The projections of general school age children are made in the Department of Education and are available through the Assistant to the Commissioner, Mr. Gary Blanchard.

Projected Mix of Educational Programs

Based upon the available, although limited historical enrollment data (discussed in the Enrollment section) and upon the projected policy and emphasis in special education, the Bureau of Special Education will be able to estimate the future mix of educational programs.

Teacher/Pupil Contact Ratios

New Jersey law provides for teacher/pupil contact ratios, but neither law nor policy exists at the state level for physical or occupational therapists or aides. While some ratios do exist,their use at the local level varies widely.

Special Education Personnel

Very little educational manpower data is collected at the state level. There is data on number of school psychologists, however its quality is questionable. Data on the other special education occupations does not exist, but plans to collect it have been made. Some of the data is presently collected in some of the counties. The Office of Teacher Education and Certification, Division of Administration, may be a potential source for this data element, particularly as the information needs of the Department of Education are developed through the recently announced study and system design for an Educational Management Information System. The "Special Pupil Census Report" and the School Register could serve as other sources.

V. PROCESSING POTENTIAL

There exists within the Department of Education, Division of Administration, an Office of Statistical Services with a data processing capability that only partially meets the needs of the model. In addition, the FORTRAN personnel capability is not available, although it is anticipated in near future.

Moreover, the Coordinator of Data Processing, Mr. Robert Russell, recommended at the time of the visit that an outside service bureau be employed due to the limited size of the job, the limited experience of the Office in running small jobs, and the present overloaded condition of computers, personnel, and support equipment. There does exist state government authority to secure data processing services from nongovernment service bureaus in New Jersey. The money for these services must be budgeted and the bidding must be competitive. There are already precedents established for the use of an outside service bureau including precedents within Special Education Services.

Also within other state departments, e.g., Transportation and Health, there exists IBM 360 computer capability that should be sufficient, but use of this capability was neither verified nor recommended.

Since the time of the visit to New Jersey, the state Department of Education Computer Servicing has requested proposals from contractors on the feasibility and design concept of an educational information system. This is the first phase of a series planned to define, if not provide the Department with the appropriate software and hardware. A comprehensive study and definition of educational data needs, including those of special education, should encompass the Manpower Requirements Projection Model and its associated data flow. The inclusion of the model in the implemented software package would, of course, change the present constraints to the extent that an outside service bureau would only be required as an interim measure.

Within the Special Education Services Group there exists a limited capability for analyzing and evaluating computer output. At least initially, help will be necessary from a source outside Special Education to instruct Special Education personnel in structuring input data and analyzing and evaluating their output. This capability may be found in the coordinator of the data processing center in the Office of Statistical Services. However, due to the recent feasibility and design effort discussed above, he may not be available. It is suggested that assistance be provided to Special Education by an outside source.

The attitude of the state educators and consultants towards the model was very favorable. It was apparent to the Deputy Assistant Commissioner, Dr. Ringelheim, and his assistant, Mr. Friedel, who had established a proposal prior to the visit for a cyclical information flow, that the capability of the model and the associated data flow meshed closely with their desires and needs.

While the use of a model was not opposed, there was some concern expressed over the quantifying of teacher-pupil combinations and the labeling that resulted from categorizing children by handicap.

It was pointed out that the model, in its role as a planning tool, will not only allow but also foster the use of a greater variety of teacher-pupil combinations, educational programs, and categories. This model will provide state consultants with a rapid and readily accessible tool to experiment with these variations through simulation to better meet the needs of the handicapped child.

VI. ADDITIONAL FACTORS

The reorganization of the Special Education and Pupil Personnel Services Bureau by the recently appointed Dr. Ringelheim and the alignment of its responsibilities was in progress at the time of the interview. The effects of these changes could be favorable to the implementation of the model in several ways. First, the 21 child study supervisors who reside at the county education level will report directly to the Director of Special Education Services. This will aid considerably in the transmission of data to the state level. Second, the State School for the Deaf will be more closely linked to Special Education Services. The closer relationship will foster the regular transmission of data needed for the model. Third, the reorganization will have the nine child study teams who do part of the diagnostic work report to the Pupil Personnel Services Office and provide a channel for the flow of at least part of the diagnostic data to the state office.

As noted previously, the Bureau of Special Education and Pupil Personnel Services is presently attempting to develop an annual data flow. This flow starts with submission of data from local school districts to the county, then to the state in the beginning of the school year, and back to the local level at the end of the year to repeat the cycle. This cyclical flow of information twice a year can provide much of the data needed by the model, including enrollment and attrition data.

In general, the degree of cooperation the state Department and the Bureau get from the local districts is a function of the amount of funding they provide. At present, the rate of reimbursement for the handicapped is 50 percent, and the cooperation of the local districts is limited. The expectations of Special Education are that this rate will increase to 75 percent in the near future, which should result in greater local cooperation on such tasks as data collection and reporting required by the model.

The combination of the law that assigns the ultimate responsibility for diagnosing children referred for an exceptionality to the chief school officer of the local school district and the law that gives him the mandate to provide the special education resources for diagnosed children creates a conflict of interest. One effect is to discourage the creation of waiting lists and limit the size of those that do exist.

Another effort, the Educational Improvement Center, was recently funded through Title III to determine the needs and problems of Special Education in eight southern counties of New Jersey (out of 21 counties in the state). The study effort is designed to encompass handicapped children not presently covered by state programs. This will include, among others, those children in special institutions and private schools, as well as children of pre-school age.

A data bank capable of automatic manipulation is being designed and developed to prevent duplication of other state information. Moreover, the child population in this eight county region is estimated to be approximately one-third of the state's total child population. Thus, the data bank should provide new and useful information to the state and possibly aid in the satisfaction of some of the model requirements. For instance, prevalence and incidence rates could be developed for the southern region and possibly for the entire state based on the data collected.

VII. RECOMMENDATIONS

The following recommendations would, upon implementation, provide for the information flow of data elements necessary to the utilization of the Manpower Requirements Projection Model and improve the quality of information available for special education program management.

To achieve basic implementation of this model in the State of New Jersey, it is recommended that:

1. The "Proposed Special Pupil Census Report" be implemented on an annual basis as soon as possible with the following modifications (implementation on an annual basis has already started):

   a. The scope of "placement" be broadened to include institutions and other agencies conducting special education programs, particularly where there is a movement of handicapped children between programs administered by different state authorities.

b. The scope of reporting of private school "placement" be limited to those situations where the pupil is not already supplying the information via an application to the Bureau (implemented since September visit).

c. The proposed year-end flow of data be expanded to include disposition of cases or attrition in addition to the reporting on entrants to the program since the fall report.

d. The time frame of the year end flow be adjusted so that the data in 30 June summaries is received at the state level in early summer or as close to the end of the school year as possible rather than on the proposed 1 November due date. This would permit manpower projections to be made during the summer as well as allowing operational decisions to be made prior to the start of the new school year (implemented since September visit).

e. Programs or geographical areas with high pupil turnover in special education may require a different form in the spring reporting cycle than the proposed turnaround printout. Such programs as supplemental speech and others which experience has shown to have a high turnover will probably require a year end recap of the effort by a teacher or therapists. The recap may be more abbreviated than that proposed in the spring turnaround printout. However, handicap, age or birth date, placement, and disposition should remain for the purposes of the model. Only future experience with the proposed report will point out all of the geographical areas in which turnover is high enough to render the turnaround printout unworkable. Year end summaries may also be necessary in these cases. However, such summaries, while offering a comprehensive view of the effort during the year, may cause inconsistency with other data collected for the same exceptionality. If such turnover is discovered, the balance among completeness, consistency, and ease of collection may be difficult to achieve.

2. The model be utilized according to the following schedule:

    a. In the November-December period once the fall reporting of the enrollment data to the Bureau of Special Education and Pupil Personnel Services is completed. This will provide manpower projections to the Division in time for the February budgeting process.

    b. In the summer once the year-end reporting of the changes to the enrollment figures established in the fall has been completed. This will enable planning and possibly operation decisions prior to the start of the school year.

3. A machine readable application or one that is easily converted via key punching be developed for those handicapped children attending private school and supported by the state. This will enable tallies to be made of target groups, i.e., number of children by handicap and single year of age.

4. An outside service bureau be employed for implementation and maintenance of the model until such time as the internal education service bureau has achieved the capability to service and support the effort.

5. The reporting of children diagnosed as needing but not receiving special education be developed to the extent permitted, however limited, by the diagnostic process and cooperation of local school officers. Initially some of the waiting list data may be developed from secondary sources including county survey personnel, Division of Constructive Health of the Department of Health, Division of Public Welfare of the Department of Institutions and Agencies, and, finally, the teachers themselves. Analysis and comparison of the number diagnosed with recent placements (secured from proposed census report) will be necessary to estimate the size of a waiting list from these sources. Due to the limitations and possible duplication of the data from these secondary sources, this method is only a proxy and is intended solely as an interim procedure.

6. Statewide prevalence rates be developed for those exceptionalities not currently compiled in New Jersey. Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run,

not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternate methods of validating these rates.

7. The mix of enrollments by educational program or placement be projected by the Office of Special Education Services in cooperation with the deputy assistant commissioner on the basis of historical enrollment patterns and policy changes or other factors that would affect the state's emphasis on educational programs.

To achieve improvement of quality and quantity of information developed the following considerations are offered:

1. The Bureau of Special Education and Pupil Personnel Services should coordinate data management with the Educational Improvement Center, Southern New Jersey Region, in order to supplement its own efforts in addition to providing a basis for the establishment of such rates as prevalence and incidence and such trends as enrollment and program mixes.
2. In view of the impending design to an Educational Management Information System undertaken for the entire N. J. Department of Education by a private contractor, it is advised that the Bureau coordinate with other groups within the Department who may be in a position to supply data needed, not only for the model but also for operational decisions. Such coordination may include categories of educational manpower with the Office of Teacher Education and Certification; educational program mix with the Cooperative Education and Special Needs Branch; and enrollment, particularly homebound, with the Bureau of Business Services.
3. The existing and proposed forms will provide the data required by the Manpower Requirements Projection Model. However, the reliability and consistency of the data may be improved if the personnel completing the form have some additional guidance and reinforcement. This may be accomplished in several ways:
    a. Prepare user instructions for the completion of the forms recommended. Explain the need and purpose of the data in addition to defining the terminology.

VIII. RESOURCE REQUIREMENTS—MANPOWER

The Bureau for Special Education and Pupil Personnel Services at the state level in New Jersey will require assistance in implementing the recommendations made in Section VII. In addition to the cooperation and assistance of the various agencies at state and local level who will be involved in implementing and maintaining or operating the Manpower Requirements Projection Model, systems analysis capability will be required in both phases.

This talent is required at the time of implementation to aid in forms design and modification and system design and programming. In addition, the systems analyst(s) should assist in training state personnel, writing procedures, and coordinating technical aspects among the various groups exchanging data and results. A systems analyst will be required for approximately 4 man-months and in addition, 4 man-months of special education staff effort, 1 man-month for forms design and 1½ man-months of programmer time will be needed over a two year period to effect the recommendations necessary for the implementation phase.

During the operation of the system, once system implementation is achieved, the systems analysis capability will again be required to validate the systems design, possibly to refine and improve the data flow definition, and updating the training of the special education staff. This effort will require approximately one man-week of systems analyst time and 2 man-months of special education staff time per year.

The source of this systems analysis talent will have to be a private contractor for the implementation phase. For the maintenance phase, the internal education service bureau may be capable and willing to provide the service. If not, a private contractor will again be required.

IX. PERSONS INTERVIEWED

The persons interviewed by the Operations Research, Inc. (Leasco) representative, Mr. Joe Kelly, during September visit to New Jersey were:

Mr. Robert Seitzer	Assistant Commissioner, Division of Curriculum and Instruction
Dr. Daniel Ringelheim	Deputy Assistant Commissioner, Bureau of Special Education & Pupil Personnel Services
Mr. William K. Friedel	Assistant, Office of Special Education Services
Mr. Joseph Cappello	Coordinator, Program for the Hearing-Impaired, Office of Special Education Services
Mr. Peter Kucker	Chief Accountant, Division of Business and Finance
Mr. Robert Russell	Coordinator, Data Processing, Division of Administration
Mr. Paul Winkler	Director, Educational Improvement Center, South Jersey Region
Mr. Pat McDade	Administrator of Educational Improvement Center, South Jersey Region
Dr. William Kemick	Special Consultant, New Jersey School Health, Division of Curriculum and Instruction
Dr. Maurice Knott	Director, Division of Mental Retardation, Institutions and Agencies
Dr. Watson Neiman	Director, Division of Constructive Health
Dr. Bud Millner	Maternal and Child Health, Division of Constructive Health

X. CURRENT REPORT FORMATS

Included in this section are samples of the existing forms being used in New Jersey for collecting information that is pertinent to the needs of the Manpower Requirements Projection Model as described in the preceeding sections. The forms included are:

A.	APPLICATION FOR STATE FINANCIAL AID	Division of Business and Finance, Department of Education
B.	ANNUAL REPORT OF EDUCATIONAL STATISTICS	Division of Business and Finance, Department of Education
C.	REPORT OF RESIDENT ENROLLMENT STATISTICS FOR SCHOOL YEAR ENDING JUNE 30, 1969	Division of Business and Finance, Department of Education
D.	LIST OF CHILDREN ENROLLED IN PROGRAMS FOR DEAF AND HARD OF HEARING AS OF JUNE, 1969 (For All Public and Private Programs)	Consultant for Hearing Impaired
E.	CHILDREN ENROLLED IN CLASSES OR PROGRAMS FOR HEARING HANDICAPPED (For All Public Schools, Speech and Hearing Centers and Clinics)	Consultant for Hearing Impaired
F.	NEW JERSEY SCHOOL REGISTER 1969-70 (Pages 2, 4, 5)	State Department of Education

FORM SA-1

STATE OF NEW JERSEY
DEPARTMENT OF EDUCATION
DIVISION OF BUSINESS AND FINANCE
P.O. BOX 2019, TRENTON, N.J. 08625

____
(School District)

____
(County)

APPLICATION FOR STATE FINANCIAL AID

(CHAPTER 85, L. 1954; CHAPTER 8 AND 9, L. 1956, AS AMENDED)

Application is hereby made for State financial assistance to which it is entitled by law and submits the following report of educational information concerning the pupils on roll as of the last school day of September, 1969.

THIS REPORT MUST BE SENT IN DUPLICATE TO THE COUNTY SUPERINTENDENT BY THE SECRETARY ON OR BEFORE OCTOBER 7, 1969.

STATE OF NEW JERSEY)
COUNTY OF ____________________) ss

______________________________ and ______________________________

being first duly sworn on their oaths, say:

That he, ____________________ is the Superintendent or other designated person, and he ____________________ is the Secretary of the Board of Education of ____________________, in the County and State aforesaid; that the information submitted herewith is correct and true to the best of their knowledge and belief.

Subscribed and Sworn to before me this
__________ day of ____________ 19___
____

____
(Superintendent or other designated person)

____
(Secretary Board of Education)

Checked and Approved by:

______________________________ ______________
(County Superintendent of Schools) *(Date)*

FOR STATE DEPARTMENT USE ONLY

GRADE LEVELS	PUPILS ON ROLL IN DISTRICT SCHOOLS	PUPILS SENT	PUPILS RECEIVED	RESIDENT PUPILS ON ROLL	
Kindergarten					
Grades 1 to 6 inclusive					
Grades 7 – 8					
Grades 7 – 9, Jr. H.S.					
Grades 10 – 12, Sr. H.S.					
Grades 7 – 12, 6-Yr. H.S.					
Grades 9 – 12, 4-Yr. H.S.					
Post Graduate					
Vocational Day					
Special Classes					
Total Day Schools					
Total Evening Schools					

(REPRODUCED FROM STATE FORM)

NUMBER OF PUPILS ON ROLL LAST SCHOOL DAY OF SEPTEMBER, 1969

GRADE LEVELS	ENROLLED IN SCHOOLS OF YOUR DISTRICT	SENT TO OTHER DISTRICTS TUITION PAID BY YOUR DISTRICT	RECEIVED BY YOUR DISTRICT TUITION PAID BY OTHER DISTRICTS OR INDIVIDUALS	RESIDENT PUPILS ON ROLL (a)	STATE USE ONLY
	(1)	(2)	(3)	(4)	(5)
Kindergarten					
Grades 1 to 6 inclusive					
Grades 7 – 8					
Grades 7 – 9, Jr. H.S.					
Grades 10 – 12, Sr. H.S.					
Grades 7 – 12, 6-Yr. H.S.					
Grades 9 – 12, 4-Yr. H.S.					
Post Graduate					
Vocational Day (b)					
Special Classes (c) (f)					
Total Day Schools					
Total Evening Schools (d)					
Federally Impacted Areas (3A) P.L. 874				(e)	

(REPRODUCED FROM STATE FORM)

(a) To determine the number of Resident Pupils on Roll, the formula is as follows:
Col. (1) plus Col. (2) minus Col. (3) = Col. (4)

(b) DO NOT include pupils sent to County Vocational Schools in your county.

(c) DO NOT include Individual (Home) Instruction Pupils.

(d) DO NOT include Evening Vocational, Evening School for Foreign Born or Adult Evening Schools.

(e) 3A Children – Children of parents who work and reside on federal property, and for whom an entitlement is granted under P.L. 874.

(f) DO NOT include Special Pupils sent to Private Schools.

(g) DO NOT include pupils who attend District Schools Tuition Free (e.g. children of teacher parents).

NO CORRECTIONS, ADDITIONS OR DELETIONS WILL BE MADE TO THIS FORM AFTER NOVEMBER 3, 1969.

PUPILS SENT FOR WHOM TUITION IS PAID BY YOUR DISTRICT			PUPILS RECEIVED FOR WHOM TUITION IS PAID BY OTHER DISTRICTS OR INDIVIDUALS	
GRADE LEVEL	NAME OF DISTRICT	NO. OF PUPILS	NAME OF DISTRICT OR INDIVIDUALS	NO. OF PUPILS
K				
	Total			
1 – 6				
	Total			
7 – 8				
	Total			
7 – 9 Jr. H.S.				
	Total			
10 – 12 Sr. H.S.				
	Total			
7 – 12 6-Yr. H.S.				
	Total			
9 – 12 4-Yr. H.S.				
	Total			
Post Graduate	Total			
Voc. Day				
	Total			
SPECIAL				
	Total			
	*Grand Total			
Evening				

(REPRODUCED FROM STATE FORM)

* Must agree with Page 2

FORM A3

STATE OF NEW JERSEY

DEPARTMENT OF EDUCATION

Division of Business and Finance

ANNUAL REPORT

OF

EDUCATIONAL STATISTICS

FOR THE

(REPRODUCED FROM STATE FORM)

School District of ______________________ ______________________

County of ______________________ ______________________

For the School Year Ending June 30, 1969

This report is made by the Principal of a school to his District Superintendent or County Superintendent. Superintendents will in turn submit the totals for the school district to the County Superintendent of Schools on this form. In Districts not having Superintendents the Principal of each school will send this report to the County Superintendent.

The law requires that this Report reach the County Superintendent of the County in which your School is situate, on or before the tenth day following the close of the school year.

.... New Jersey, ... 1969

To ....

Superintendent }
County Superintendent } of ....

Sir — Herewith I transmit the Annual Report of Educational Statistics for School No. (or Name) ....

District of ...., County of .... for the School Year ending June 30, 1969

....
Superintendent or Principal

....
(Give Title)

D30-23

GENERAL INFORMATION REQUIRED FOR DAY SCHOOLS
(Including Vocational Day Schools)

	BOYS	GIRLS	TOTAL
1. Actual Number of Days Schools Had Kept Open †	x x x x x x x x x x x x x	x x x x x x x x x x x x x	
2. Possible Number of Days Attendance			
3. Days Present			
4. Days Absent			

5. Times Tardy		9. Number of Sessions Truant	
6. Per Cent of Attendance (Divide No. 3 by No. 2) (4 Figures)		10. Number of Cases of Suspension or Expulsion During Year	
7. Average Enrollment (Divide No. 2 by No. 1) (b) (Nearest Tenth)		11. Number of Pupils on Part Time (Less than legal School time)	
8. Average Daily Attendance (Divide No. 3 by No. 1) (Nearest Tenth)			

	DAYS PRESENT	DAYS ABSENT	AVERAGE DAILY ATTENDANCE	AVER. DAILY ENROLLMENT	TUITION PUPILS REC'D	
					Days Present	Days Absent
Kindergarten (Approved)						
Grades Pre 1-6 Inc.						
Grades 7-8 (Not approved Jr. High)						
Approved Jr. High Schools						
Sr. High when Jr. High approved**						
Reg. 4-yr. High or less						
Special Classes						
Totals			(a)	(b)		

ENROLLMENT TABLE (Day Schools only)

GRADES			BOYS	GIRLS	*TOTAL
Number of Pupils—					
1. One Room Rural Schools					
2. Two-Room Rural Schools					
3. Kindergarten (approved only)					
4. Pre First Grade					
5. Grade I	(Include in Grades Pre First to Eight all pupils in One-Room and Two-Room Rural Schools. Items One and Two above.)				
6. " II					
7. " III					
8. " IV					
9. " V					
10. " VI					
11. " VII***					
12. " VIII***					
13. " VII	In Approved Junior and 6-year High Schools	Unapproved Junior Schools must NOT be reported in Items 13 to 22			
14. " VIII					
15. " IX					
16. " X	In Senior High School in Districts Maintaining Approved Junior & 6-Year High Schools.				
17. " XI					
18. " XII					
19. " IX	***In regular four year High Schools or less				
20. " X					
21. " XI					
22. " XII					
23. Vocational Day Classes					
24. Post Graduate Classes					
25. Multiple Handicapped					
26. General Orthopedic					
27. Visually Handicapped					
28. Auditory Handicapped					
29. Chronically Ill					
30. Educable Mentally Retarded					
31. Trainable Mentally Retarded					
32. Emotionally Disturbed					
33. Neurologically or Perceptually Impaired					
34. Socially Maladjusted					
35. Communication Handicapped					
36. Other Special Classes					
37.					
38.					
39. TOTALS					

AGES	BOYS	GIRLS	*TOTAL
1. Number of pupils 4 years of age			
2. " " " 5 " " "			
3. " " " 6 " " "			
4. " " " 7 " " "			
5. " " " 8 " " "			
6. " " " 9 " " "			
7. " " " 10 " " "			
8. " " " 11 " " "			
9. " " " 12 " " "			
10. " " " 13 " " "			
11. " " " 14 " " "			
12. " " " 15 " " "			
13. " " " 16 " " "			
14. " " " 17 " " "			
15. " " " 18 " " "			
16. " " " 19 " " "			
17. " " " 20 " " "&ov'r			
18. " " " Total			
Nursery Schools			
Number of pupils receiving Bedside or Home Instruction (c)			

(c) Number of Bedside or Home Instruction pupils receiving less than five hours per week __________ five or more hours per week. __________ .

(c) If pupils are reported teachers must be reported in Items 28 and 28a, Pg. 3.

(REPRODUCED FROM STATE FORM)

INSTRUCTIONS

e grand total of grades must equal grand total ages.

** Approved six-year high schools report on this line.

*** Do not include pupils in Approved Junior High Schools or Six-year High Schools.

† Where Item 1 differs in types of schools, determine the A.D.A. and A.D.E. for each type separately and add the results. This will be the number for items 7 and 8. A note should follow giving such variables.

(a) Must equal item 8.
(b) Must equal item 7.

D30-24

REGULAR EVENING SCHOOLS

Do not Include Manual Training, Vocational and Foreign-Born Residents Operating Under New Jersey Statutes 18A:49-1.

	ORDINARY SCHOOLS			ACCREDITED HIGH SCHOOLS		
	Male (a)	Female (b)	Total (c)	Male (a)	Female (b)	Total (c)
1 Actual Number of Evenings Schools were kept open	• • • • •	• • • •		• • • • •	• • • •	
2 Number of Weeks Schools were maintained	• • • • •	• • • •		• • • • •	• • • •	
3 Possible No. of Evenings Attendance						
4 Total Evenings Attendance						
5 Total Evenings Absent						
6 Average Evenings Attendance						
7 Average Evenings Enrollment						
8 Total Enrollment						
9 No. of Pupils over 20 Years of Age						
10 No. of Hours per Evening Session						

Evening Schools for Adult Education Vocational and Foreign-Born Residents*

* "Evening Schools for Foreign-Born Residents" includes only those that receive special State aid under New Jersey Statutes 18A:49-1 and 3.

	Adult Education (a)	Vocational (b)	Foreign-Born *Residents (c)
12 Number *Evenings* School Kept Open			
13 Number of Males Enrolled			
14 Number of Females Enrolled			
15 Total Enrollment			
16 Total Evenings Attendance			
17 Average Evenings Attendance			

DAY VOCATIONAL SCHOOLS

(Only Separately organized Schools)
(This information should also be reported on page 2)

17a Number of Days Schools Kept Open, During Year
18a Possible Number of Days Attendance
19a Number of Days Present
20a Number of Boys Enrolled
21a Number of Girls Enrolled
22a Total Enrollment
23a Average Daily Enrollment

(REPRODUCED FROM STATE FORM)

JUNIOR COLLEGES

17b Number of Days Schools Kept Open
18b Possible Number of Days Attendance
19b Number of Days Present
20b Number of Boys Enrolled
21b Number of Girls Enrolled
22b Total Enrollment

SUMMER SCHOOLS	ELEMENTARY		SECONDARY		Total (c)
	Male (a)	Female (b)	Male (a)	Female (b)	
23 Number of Teachers Employed					
24 Amount of Salaries Paid (Must Agree with Secretary's Record)					
25 Number of Pupils Enrolled, Elementary Grades					
26 Number of Pupils Enrolled, High School Grades					
27 Actual Number of Days Schools Kept Open	• • • •	• • • •	• • • •	• • • •	
28 Total Possible Days Attendance	• • • •	• • • •	• • • •	• • • •	
29 Average Daily Enrollment (28 ÷ 27)	• • • •	• • • •	• • • •	• • • •	

SCHOOLS BY TYPES

A Building Having High School Classes, Elementary Classes and Kindergarten Classes in the Same Building Should Be Reported as Three Separate Schools

KINDER-GARTEN	ELEMENTARY	REGULAR FOUR-YEAR HIGH SCHOOL OR LESS	APPROVED JUNIOR HIGH SCHOOL PLAN		SPECIAL	VOCATIONAL (only separately organized)	TOTAL
			JUNIOR HIGH	SENIOR HIGH*			

* Include 6-Year High School

GIVE BELOW NUMBER OF HIGH SCHOOL GRADUATES FROM FEBRUARY AND JUNE (Use age shown on enrollment page of Register)	14 Yrs. or less	15 Yrs.	16 Yrs.	17 Yrs.	18 Yrs.	19 Yrs.	20 Yrs.	OVER 20 Yrs.	TOTAL
Boys,									
Girls,									
TOTAL									

			Number of pupils enrolled in your district who were previously enrolled in public schools in other states during the year.			Number of pupils enrolled in your district who were previously enrolled in public schools in other school districts of this State during the year.		
GRADES			BOYS	GIRLS	TOTAL	BOYS	GIRLS	TOTAL
1. Kindergarten (approved only)								
2. Pre First Grade								
3. Grade I	(Include in Grades Pre							
4. " II	First to Eight all pupils							
5. " III	in One-Room and Two-							
6. " IV	Room Rural Schools.							
7. " V	Items One and Two							
8. " VI	above.)							
9. " VII***								
10. " VIII***		Unapproved Junior Schools must NOT be reported in items 11 to 20						
11. " VII	In Approved Junior and 6-year High Schools							
12. " VIII								
13. " IX								
14. " X	In Senior High School in Districts Maintaining Approved Junior & 6-Year High Schools.							
15. " XI								
16. " XII								
17. " IX	***In regular four year High Schools or less							
18. " X								
19. " XI								
20. " XII								
21. Vocational Day Classes								
22. Post Graduate								
23. Multiple Handicapped								
24. General Orthopedic								
25. Visually Handicapped								
26. Auditory Handicapped								
27. Chronically Ill								
28. Educable Mentally Retarded								
29. Trainable Mentally Retarded								
30. Emotionally Disturbed								
31. Neurologically or Perceptually Impaired								
32. Socially Maladjusted								
33. Communication Handicapped								
34. Other Special Classes								
35.								
36.								
37. TOTALS								

(REPRODUCED FROM STATE FORM)

D30-26

A-4a

STATE OF NEW JERSEY
DEPARTMENT OF EDUCATION
P.O. BOX 2019
TRENTON, NEW JERSEY 08625

Division of Business and Finance

REPORT OF RESIDENT ENROLLMENT STATISTICS
FOR SCHOOL YEAR ENDING JUNE 30, 1969

Board of Education of ______________________________ County of ______________

THIS REPORT IN DUPLICATE MUST BE SENT TO THE COUNTY SUPERINTENDENT BY THE SECRETARY ON OR BEFORE DECEMBER 1, 1969

STATE OF NEW JERSEY)
COUNTY OF______________) ss

______________________________ and ______________________________

being first duly sworn on their oaths, say:

That he, ______________________ is the Superintendent or other designated person, and ______________________ is the Secretary of the Board of Education of ______________________, in the County and State aforesaid; that the information submitted herewith is correct and true to the best of their knowledge and belief.

Subscribed and Sworn to before me this
________ day of __________ 19___
____

Checked and Approved by:

______________________________ Date ______________
County Superintendent of Schools

FOR STATE DEPARTMENT USE ONLY

Class	A.D.E. in District Schools	Pupils Sent	Pupils Received	Resident A.D.E.
K				
1-6				
7-8				
9-12				
Special				
Vocational				
Sub-Total				
Evening				
Grand Total				

(REPRODUCED FROM STATE FORM)

D30-27

ATTENDANCE, DAYS ABSENT AND AVERAGE DAILY ENROLLMENT OF DISTRICTS MAINTAINING SCHOOLS FOR 1968-69

Grade *	Number of		Days Present	Days Absent	Average Daily Enrollment	*For State Use Only*
	Pupils	Days Open				
Kindergarten						
Grades 1 - 6						
Grades 7 - 8						
Grades 7 - 9 Jr. H. S.						
Grades 10 - 12 Sr. H. S. **						
Grades 7 - 12 6 yr. H. S. **						
Grades 9 - 12 4 yr. H.S. **						
Vocational Day						
SUB-TOTAL		XXX				

SPECIAL CLASSES

Type	Number of				Days Present	Days Absent	Average Daily Enrollment	*For State Use Only*
	Classes	Teachers	Pupils	Days Open				
Retarded Educable								
Retarded Trainable								
Cerebral Palsy								
General Orthopedic								
Cardiopathic								
Blind								
Partially Seeing								
Deaf								
Hard of Hearing								
Chronic Defects & Diseases								
Speech & Physical Defect								
Neurologically Impaired								
Other Special ***								
SUB-TOTAL (Special Classes)				XXX				
GRAND TOTAL *(Reference No. on A-3 -- Page 2)*			(37)	XXX	(3)	(4)	(7)	

(REPRODUCED FROM STATE FORM)

**Do not include data for special classes.*

***Include one, two and three year high school post graduates.*

****Give details if figure is reported in this category.*

NOTE: A.D.E. is determined by days present plus days absent divided by number of days open. This should be computed to nearest tenth of a pupil. Where No. of days open differs, compute each group separately and add results for A.D.E.

SPECIAL PUPILS OR VOCATIONAL SCHOOLS *
PUPILS SENT

Name of District to Which Pupils Are Sent	Type of Class	Number of		Days Present	Days Absent	Average Daily Enrollment	*For State Use Only*
		Pupils	Days Open				
TOTAL of above and Page 2-B	XXX		XXX				

PUPILS RECEIVED

Parents or Others							
TOTAL of above and Page 2-A	XXX		XXX				

** Do not include pupils attending county vocational schools within the county.*

CHILDREN ENROLLED IN CLASSES OR PROGRAMS FOR THE HEARING HANDICAPPED

School District or Clinic ______________ Type of Class or Program ______________

Name of Teacher or Therapist ______________ Date ______________

Name of Child	Address	Date of Birth	School District	Hard of Hearing	Deaf	Other Handicaps

(REPRODUCED FROM STATE FORM)

JUN 20 1969

List of Children Enrolled in Programs for the Deaf and Hard of Hearing as of June, 1969

School District Westwood Regional

Type of Program Resource Room
(Class, Resource Room, Itinerant Teacher, etc.)

Bergen Co.

Status for September, 1969

Name and Address	School District	Birth Date	Remaining in Program (Check)	Leaving Program (Check)	Disposition of those leaving
John Genatempo 654 Lincoln Blvd. Westwood	W.W.Regional	2/1/61	X		
Scott Nierengarden 981 Adams Place-Washington Township	"	2/10/60		X	Return to neighborhood school with supplemental help if necessary
Brian Clark 259 South Chestnut St. Washington Township	"	12/26/57	X		
Glenn Turner 22 Adams Street, Westwood	"	4/3/62	X		
Andria Ginesin 284 Wilson Avenue Washington Township	"	6/5/57			
Kenneth Sage 785 White Birch Road Washington Township	Hackensack	9/15/61	X		

(REPRODUCED FROM STATE FORM)

D30-30

JFC:sk
6/12/69

School District of ______________________________ **District Code** __________ **County of** ______________
Township or City

Local Name and Number of School ____

Grade ____________________ **Register No. (If more than one Register is used)** ____________________

Hour of Opening School ____________________ **Hour of Closing School** ____________________

Number of Hours this Class was in Session (Exclusive of Lunch Period) ____________________

Name and Title of Person Authorized to Keep Register ______________________________

SAMPLE

NEW JERSEY SCHOOL REGISTER

1969 – 1970

(REPRODUCED FROM STATE FORM)

For the School Year Beginning
July 1, 1969 and Ending June 30, 1970

(Leave Blank)
RECEIVED
EXAMINED
APPROVED

(Form A1 - 30,500)

D30-31

suspension, or other prolonged absence, when not officially reported as enrolled elsewhere.

No pupil will be eligible for State Aid for Home Instruction until he has been transferred to an Individual Instruction Record. A pupil should not be recorded as absent who is reported on an Individual Instruction Record.

The entry in the column marked "number of days present" shall be regarded as the official certification for the number of days attended by the pupils for the month and accumulated totals for the year shall be official total days attended for each room, grade or school.

Monthly Attendance—The name of the month is to be identified by the teacher or other authorized person on each monthly page as well as the dates under the days of the week. Absence, tardiness, transfers and leaving of school are to be recorded as indicated in the instructions.

4. DIRECTIONS FOR RECORDING ENROLLMENT AND ATTENDANCE

This New Jersey School Register has been revised to be consistent with the application of data processing to pupil attendance accounting. The following codes employed are in accordance with "Pupil Accounting for Local and State School Systems" of the U.S. Office of Education and codes developed by the New Jersey State Department of Education.

Pupil Classification Codes

E-1 *Original Entry for the United States*—A pupil who has not been previously entered or enrolled in any public or non-public school during the regular school year for which the register is reporting.

E-2 *Original Entry for New Jersey*—A pupil who was previously entered or enrolled in a public or non-public school outside of New Jersey during this school year but who was not previously enrolled in New Jersey at any other time during this same school year.

R-1 *Re-entry from Within the Same School*—A pupil received from another class within the same school in which the pupil had previously been entered in a different register.

R-2 *Re-entry from a Public School Within the District*—A pupil who was previously enrolled in another public school within the same district during this school year.

R-3 *Re-entry from a Non-Public School Within the District*—A pupil who was previously enrolled and attended a non-public school within the same district during this school year.

R-4 *Re-entry from Another Public School Within the State*—A pupil who was previously enrolled in another public school outside the district but within N.J. during this school year.

R-5 *Re-entry from a Non-Public School Within the State*—A pupil who was previously enrolled and attending a non-public school outside the district but within N.J. during this school year.

R-6 *Re-entry from the Same Room in the Same School*—A pupil who returns to the same room or register after officially leaving school and who has not entered any other school during the intervening period.

R-7 *Re-entry from Another State or Country*—A pupil received directly from any school in another state or country who had been previously enrolled during this school year in any school within N. J.

R-9 *Re-entry from Individual Instruction Record*—A pupil returning to the regular register from the Home or Individual Instruction Record.

T-1 *Transfer Within the Same School*—A pupil transferred to another register within the same school.

T-2 *Transfer to Another Public School or Other Class Within the District*—A pupil transferred to any other public school or class within the district.

T-3 *Transfer to a Non-Public School Within the District.*

T-4 *Transfer to Any School Outside the District.*

T-9 *Transfer to Individual Instruction Record*—A pupil transferred to Individual Instruction at Home or School whose instruction is recorded in the Individual Instruction Record.

(For additional instructions see page 5.)

5. KINDERGARTEN AND NURSERY AND HIGH SCHOOL DEPARTMENTS

In kindergarten and nursery classes having but one session, compute totals as if pupils had been present a full day.

In high school classes holding one daily session of at least four hours exclusive of recess, compute totals as if pupils had been present two sessions.

6. EVENIN[illegible]

Mark a half-da[illegible] ch pupil of legal school age attend[illegible] n two or more hours.

A pu[illegible] gs would be credited with 10½ [illegible] e regarded as having had 10½ da[illegible] ance. If present 15 evenings he [illegible] n the totals with an attendance of 7½ [illegible] ed absent 3 days.

[illegible] ing school Registers should have the words "E[illegible] ing School" plainly written on the cover.

(REPRODUCED FROM STATE FORM)

RECORD OF PUPILS ENROLLED

RECORD AGE AT BIRTHDAY NEAREST TO SEPTEMBER 1, 1969

ATTENDANCE PAGE

ENTRY STATUS		NAMES OF BOYS XXXXXX (CROSS OUT ONE)	GRADE	DATE OF BIRTH			AGE	RESIDENT DISTRICT	TUITION	CODE REF.	TRANSFERRED TO OR FROM	LAST DATE ON ROLL	MONTH OF JULY JAN. AUG. FEB. (SEPT.) MAR. OCT. APR. NOV. MAY DEC. JUNE																										POSSIBLE NO. OF DAYS' ATTEND.	NO. OF DAYS PRESENT	NO. OF DAYS ABSENT	TIMES TARDY (PER SESSION)
														FIRST WEEK					SECOND WEEK					THIRD WEEK					FOURTH WEEK					FIFTH WEEK								
				YR	MO	DAY								M	T	W	T	F	M	T	W	T	F	M	T	W	T	F	M	T	W	T	F	M	T	W	T	F				
																			4				8	11				15	18				22	25				29				
E1	1	Allen, Donald	1	64	1	3	6	2300																															19	19	0	0
		Resident pupil enrolled at opening of school and remained in attendance																																								
		in same register for entire year.																																								
E1	2	Carter, Alfred	1	64	7	5	5	2300		T9	9/18 R9 11/15															1	1	1	T9	-	-	-	-	-	-	-	-	-	9	6	3	0
		Resident pupil enrolled at opening of school transferred to Home Instruction																																								
		for at least four weeks and later returned to regular class.																																								
E1	3	Davis, Thomas	1	64	2	11	6	4200	1																	1	5	5-	1	1	5								19	14½	4½	0
		Non-resident pupil attending district school for entire year, tuition paid																																								
		by his resident district.																																								
E1	4	Engle, Samuel	1	63	8	17	6	2300		T4	Passiac, N.J. *	9/22														1								T4	-	-	-	-	14	13	1	0
		Resident pupil who transferred to another school district in New Jersey																																								
		during the year.																																								
E2	5	Brown, John	1	64	2	4	6	2300			Hamilton, Pa. *									-	-	-	-	-	-	-	-	-	E2			2	2-			1			10	9	1	2
		Resident pupil who had been previously enrolled in a school outside of																																								
		New Jersey, moved to district and remained in attendance for the balance																																								
		of the year.																																								
R1	1	Ivers, John	3	61	1	10	9	3600	2		Mr. Smith *									-	-	-	-	-	-	R1	3	3	3										13	10	3	0
		Non-resident pupil whose tuition is paid by parents. Transferred from another																																								
		register in the same school.																																								
R2	2	Foster, Anthony	3	61	6	17	8	2300			Miss Brown - Salem School*			.						-	-	-	-	-	-	-	R2	1											12	9½	2½	1
		Resident Pupil enrolled originally in another school in same district.																																								
		Transferred to this register.																																								
R3	3	Grant, Robert	3	61	7	3	8	2300			Our Lady of Grace									-	-	-																	9	9	0	0
		Resident pupil who was previously enrolled in a nonpublic school in New Jersey.																																								
R4	1	Hall, Andrew	6	58	4	4	11	2300			Vineland *																												18	17	1	0
		Resident pupil who transferred from another school in New Jersey.																																								
R6	1	Smythe, John	11	53	1	3	17	2300			Left to work *														1	L	-	-	-	-	-	-	-	R6		2			11	8	3	1
		Resident pupil who returned to the same register after officially leaving school.																																								
R7	2	Johns, Albert	11	52	9	19	17	2300			Atlanta, Georgia *									-	-	-	-	-	-	-	R7												12	12	0	0
		Resident pupil who transferred from a school out of the State, but who had																																								
		been originally enrolled in a New Jersey school prior to moving out of																																								
		State.																																								
KINDERGARTEN - - Section 5																																										
E1	1	Phillips, Charles	K	65	1	4	5	2300															1	1		3	3			1		1		1		1			19	11	8	0
EVENING SCHOOL - Section 6																																										
E1	1	Clark, William	11	52	9	2	17	2300			Left to work *													5		3-	5		3-		L	-	-	-	-	-	-	-	5½	3½	2	0

(REPRODUCED FROM STATE FORM)

* Optional - should be included on pupil's permanent record.

Note: T & L optional - may use dash, not counted as a possible day.
E & R optional - may leave blank, counted as a possibly day.

ADDITIONAL INSTRUCTION

ENROLLMENT PAGES (6 and 7, 18 and 19, etc.)

Note that Boys or Girls must be designated by crossing out the one which does not apply. In individual registers it is suggested that Boys be entered on the first enrollment page and Girls on the second enrollment page.

In central registers, the format may be adapted to meet the needs of the district. There is no need to identify the teacher of the class, therefore, there may be a continuous listing of all the boys followed by a continuous listing of all the girls whose attendance is recorded in the particular register. It is suggested that these lists be maintained at a single grade level rather than mixing grades in order to expedite the identification of other local and state enrollment data which requires summaries of Boys and Girls separately by grade. This does not prohibit the use of a single central register for more than one grade within the individual building but caution should be noted to leave sufficient space at the end of each grade, both on the Boys and Girls pages to permit additional entries in the same grade throughout the year.

Separate registers must be kept where class hours or sessions may be different, such as, Kindergarten, a.m. and p.m., special education classes, and where separate accounting is required for state aid and statistical reporting, such as, K, 1-6, 7-8, 9-12, and special education.

The name and complete information for *every* pupil in attendance in the class, classes or school designated on the cover of the Register are to be recorded on the Enrollment and Membership page. The following instructions are to be followed in completing specific columns:

Entry Status—Enter here the appropriate E or R code for each pupil on the first day of attendance in each register. Most pupils enrolled in the opening of school, fall in the E-1 category, which designates those who had not been previously enrolled anywhere in any school, public or non-public, during this same school year.

R-1 and R-2—should be used to designate those pupils who had been previously enrolled in another register in the same school or school district.

R-9—would be used only if a pupil was enrolled directly from Home Instruction and had not been previously enrolled in another regular register prior to Home Instruction.

Register Number—Only the first page each for Boys and for Girls is numbered. Where Central Registers are kept, the numbers following 40 should be entered consecutively in this column.

Resident District—Record here the code number for the district of residency for each pupil. Since this would be the same for all resident pupils, it need only be put on the cover. Code numbers have been assigned to each school district and are available in each principal's office. Tuition pupils would be designated by their resident district code. Regional schools should enter the code number designating the constituent district.

Tuition—Indicate in this column all tuition pupils by the following codes: 1—paid by a school district; 2—paid by parents; 3—paid by institutions or other agencies.

Code Reference—Any transfer or re-entry other than that listed in the Entry Status Column is entered here.

Transferred To or From—Except for the initial entry of a pupil in this register, all subsequent transfers and entries are reported in these columns. We have included two columns to be used for transfer information; this shall include transfer codes and may include the name of the class, school or district from which pupil is received or to which he is sent.

Date of Birth and Age—Enter the pupil's birth date and determine his age from the table below.

(REPRODUCED FROM STATE FORM)

TABLE FOR FINDING AGE NEAREST TO SEPTEMBER 1, 1969

Year of Birth	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65
Born during Jan. or Feb.	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5
Bom all other months	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4

Directions for Using Table:

Date of birth, November 2, 1956. Go to the column marked "56." Since child was born in November, his age is shown in the column marked "Born all other months." Age is given as 13.

Date of birth January 6, 1961. Go to the column marked "61." Since child was born in January, he will be 9 years of age as shown in the column adjacent to January or February.

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
NEW JERSEY

DATA ELEMENTS			PUBLIC SCHOOLS			KATZENBACH SCHOOL FOR DEAF			INSTITUTIONS			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Not available	Fall cycle of "Special Pupil Census Report"	Teachers via local school districts and counties	Available			Available at Department of Institutions and Agencies	Fall cycle of "Special Pupil Census Report"	Department of Institutions and Agencies or Institutions	Partially available but not easily retrieved
		HANDICAPPING CONDITION	Available by number of classes after school year			Available						
		EDUCATION PROGRAM	Not available			Available						
	ON WAITING LIST	AGE	Not available except hearing impaired	New report	Local school officer	Available			Not available	New report	Department of Institutions and Agencies or Institutions	Not available
		HANDICAPPING CONDITION	Not available except hearing impaired			Available			Not available			Not available
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available	New report	Local school officer	Not applicable						
		HANDICAPPING CONDITION	Not available									
	INTRA-STATE TRANSFERS	AGE	Not available	Spring cycle of "Special Pupil Census Report"	Teachers via locals and counties	Available			Not available	Spring cycle of "Special Pupil Census Report"	Department of Institutions and Agencies or Institutions	
		HANDICAPPING CONDITION	Not available						Not available			
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Not available	Spring cycle of "Special Pupil Census Report"	Teachers via locals and counties				Not available	Spring cycle of "Special Pupil Census Report"		
		HANDICAPPING CONDITION	Not available						Not available			
		REASON	Not available						Not available			
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Available through assistant to commission									
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Not available	Projection of special services	By staff education							
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Available except therapists and aids	Use experience	Consultant of given exceptionality	Available at institution			Available at Institutions			
		EDUCATION PROGRAM	Available except therapists and aids			Available at institut ion			Available at institutions			
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Not available	Report, Census report, School register	Office of Teacher Education and Certification, teachers, Division of Business and Finance							

NEW MEXICO STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

NEW MEXICO STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of New Mexico and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 2 at the end of this report.

II. SUMMARY

New Mexico's Division of Special Education is currently receiving little useful data from the local education agencies and is receiving none from other state sponsored special education programs. Because the Division, relatively new, has a small staff and the number of special education programs offered throughout the state is growing rapidly, a detailed special education information system should be developed and implemented in the near future to enable the state staff to make any needed policy decisions as rapidly as possible and to plan for the program expansion in terms of funds, personnel, and facilities. The information system will also support the Manpower Requirements Projection Model, one of the tools used to make such decisions and plans. A possible minor problem could arise in an attempt to develop a data flow between the local education agencies who do not provide any special education services and the Division of Special Education. All factors considered, a data summary type of special education information system has a high probability of being developed and implemented in a relatively short period of time.

The proposed information system should result in successive improvements in the completeness and the accuracy of the data elements over time, with such validity being achieved within a few years at the most. Later documens pertaining to this project contain more information about methods which may be used to estimate some of the data elements until a good information flow is developed and validated.

Within the Department of Education, the data processing hardware available for use by the Division of Special Education has the capability to handle the processing of the information in the data summary system, but computer time elsewhere will have to be leased to run the Manpower Requirements Projection Model.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

Only local public education is operated by the New Mexico Board of Education, an elected body. The Board appoints a Superintendent of Public Instruction to administer the Department of Education and to ensure that the "minimum educational standards for all public schools in the state," set forth by the Board, are followed in the local school districts. The Superintendent and his staff must approve every school, in terms of meeting the standards; thus all private schools must be evaluated.

Within the Instructional Services branch of the Department of Education, the Division of Special Education, consisting of a director, one specialist and a consultant (recently added), is responsible for approving and overseeing the conduct of the special education programs operated by the local districts.

The booklet "Minimum Standards for New Mexico Schools," approved by the State Board of Education on December 2, 1968, outlines the responsibilities of the Division of Special Education as follows:

- To serve in a consultative capacity to local education agencies
- To assist local agencies in establishing a special education program and in meeting the minimum standards for special education classes
- To set minimum standards for special education classes.

In addition, the Division operates the program of state funding of special education in non-profit training centers. The Division of Special Education was formed during the summer of 1968; responsibility for special education was previously assigned to the combined Division of Special Education and Guidance.

The aforementioned booklet also dictates that any child diagnosis must be performed by person(s) approved by the State Superintendent of Public Instruction and outlines some of the responsibilities of the local education agencies as follows:

- To maintain complete records of all students
- To secure an examiner's report on candidates for the special education program
- To establish local criteria for admission to the special education program
- To place children in the special education programs.

All state operated special education programs in New Mexico are the responsibility of the Executive Branch of the government and report to the Governor. The two state schools, one for the deaf and one for the visually handicapped, are autonomous and each is run by a superintendent and a principal. Within the Department of Hospitals and Institutions, the Division of Education and Training operates programs for the mentally retarded in the Los Lunas Hospital and Training School and its two satellites at Villa Solano and Fort Stanton and programs for the emotionally disturbed in the State Institute at Las Vegas, In addition, the children in the two youth correctional institutions, the Boy's School at Springer and the Girl's Welfare Home at Albuquerque, although now receiving normal education, are considered to need special education programs for the emotionally disturbed.

The organization chart depicting the foregoing description is presented in Figure 1.

Since the two groups responsible for local and state public special education programs report to different and independent portions of the government, there are no formal responsibility links, and any interdepartmental

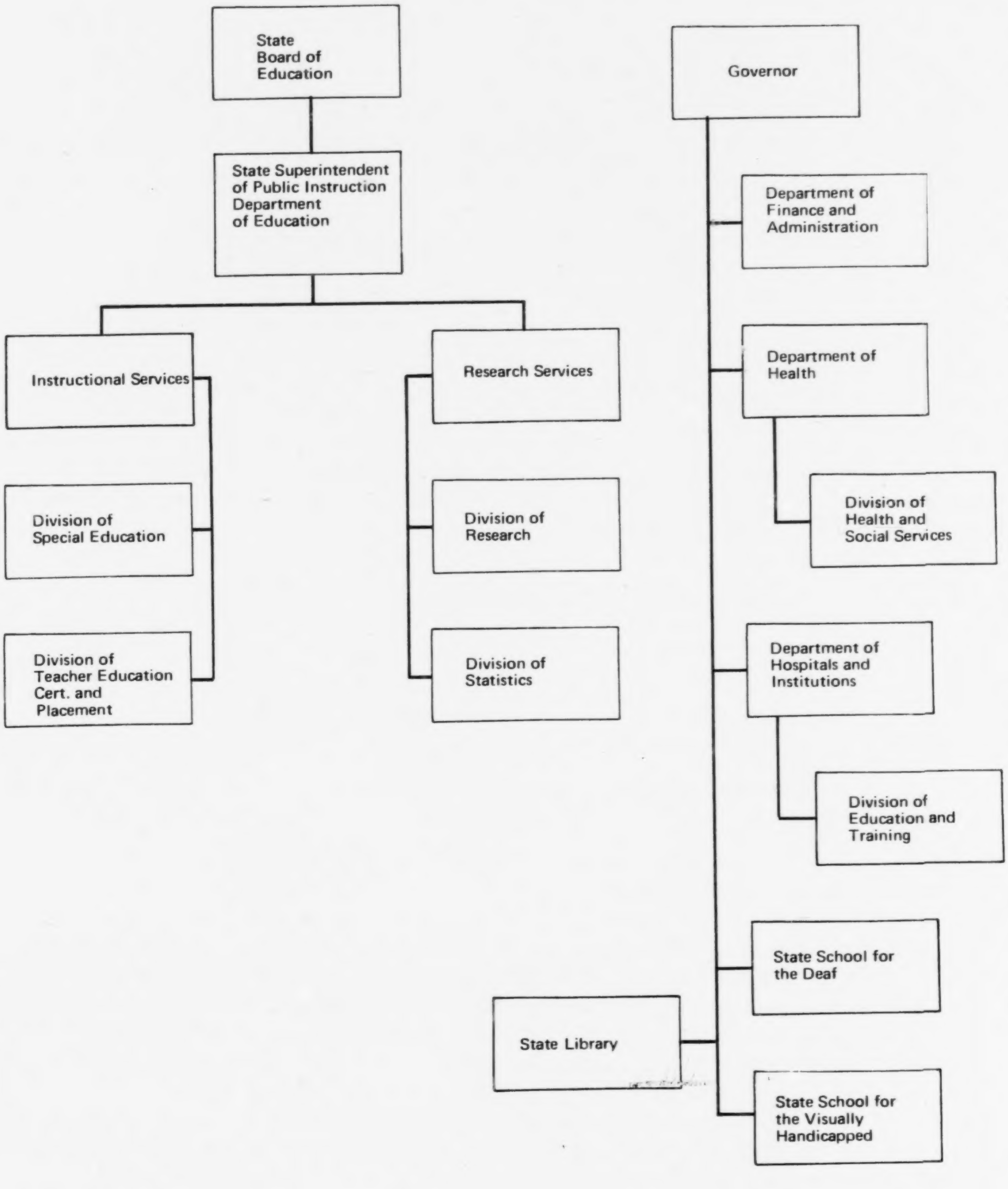

State Board of Education
State Superintendent of Public Instruction Department of Education
Instructional Services
Division of Special Education
Division of Teacher Education Cert. and Placement
Research Services
Division of Research
Division of Statistics
Governor
Department of Finance and Administration
Department of Health
Division of Health and Social Services
Department of Hospitals and Institutions
Division of Education and Training
State School for the Deaf
State Library
State School for the Visually Handicapped

FIGURE 1. NEW MEXICO ORGANIZATION CHART, RELATING TO SPECIAL EDUCATION

liaison is informal and voluntary. Currently, information is transmitted among these departments/agencies on an "as requested" basis.

As stated above, the non-public schools operating special education programs must be approved by the Department of Education and, if classified as a non-profit training center, may apply for state funding for these programs.

IV. DATA ELEMENT EVALUATION

In 1969-70, out of 89 local school districts in New Mexico, 46 are providing some type of special education services, an increase of 11 over the previous year's total. With such a fast growing program and a small staff in the Division of Special Education, it is important to develop a detailed information system to enable the staff to make any needed policy decisions as rapidly as possible. Currently, all of the data for locally sponsored special education originate from the local Superintendent of Schools, or his authorized representative, and from the classroom teacher. Data for the state schools and the state hospitals are not formally reported to the Division of Special Education but could be requested from their administrators.

Any future data about private school programs could be reported on a voluntary basis by each private program unless the state dictates that data reporting is essential to the maintenance of state approval of the program.

In the following paragraphs, the data elements needed by the Manpower Requirements Projection Model and by the state for planning purposes are discussed in terms of their availability and development potential. Since the state personnel interviewed did not consider it necessary to maintain data by child name at the state level, the development of each data element should fit into the framework of a data summary type of information system, e.g., data reported in totals by age and handicapping condition, rather than a modified pupil accounting system.

Identified Handicapped Population

For local programs, the number of children enrolled in special education, the first component of the most important data element (the number of children identified as needing special education), is currently estimated in the spring for the following fall by the Superintendent of Schools or his authorized representative and is reported in the fall in gross form by each classroom teacher. The local Superintendent estimates the enrollment for each class, by handicapping condition and approximate education level, on a form entitled "Application for Approval of a Special Education Program..." (see page D31-19) but cannot break the enrollment down by age because the actual children who will be served are not determined until the fall.

As part of an overall education information system, each classroom teacher fills out a card each fall to report enrollment data and information about his position, certification status, and experience. Examples of these cards are shown in Section X (see page D31-22) of this report. Understandably, most of the information requested on these cards and the codes used in completing them are oriented toward regular education. Another drawback to using these cards to collect enrollment data is that Title VI employees and students are not reported on the cards.

It should be a relatively simple task to design a Special Education Personnel Information card by modifying the existing Personnel Information cards. This new card could then be used to collect local and Title VI enrollment data (by age, handicap, and educational program) and to request other personnel information that is relevant to special education. To affect the collection of the enrollment data, a simple two column matrix could replace the existing matrix in the center of the card to request each teacher to total his pupils by age. Thus, all of the local public enrollment data needed for model input could be collected.

Currently, the number of children on special education waiting lists, the second component of the identified handicapped child population, should be complete at the local education agencies operating special education programs, but none of the local agencies report this information to the state. The term "should" is used because the "Minimum Standards for New Mexico Schools" dictates that each local school district shall maintain complete records of all students. If the local districts can be convinced, or reconvinced, of the value of their and the state's keeping track of these data for planning purposes, a request for the number of children on that waiting list, by age and handicapping condition at the beginning of the year, could be made on a simple matrix form.

A set of similar matrix forms could be used to request enrollment and waiting list data from the private schools and the state schools, hospitals and institutions operating special education programs. A validity problem may arise with the latter data element if a large proportion of the children on the waiting lists for state operated programs are being served in local programs or have moved out of the state. If it is determined that this is the case, the request for state waiting list data could be dropped.

Unidentified Handicapped Population

Since no complete and systematic diagnostic referral system now exists at the state or local level in New Mexico, data on the unidentified handicapped child population will probably have to be estimated using the prevalence rates that the Division of Special Education currently uses. These rates are slight modifications, based on experience and expert opinion, of BEH published prevalence rates. This estimation of the unidentified population would be used rather than an estimate of the diagnostic waiting list and the potential undiagnosed population.

Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

Entrants and Attritions

Information about the numbers of children moving into and out of the identified handicapped child population is not currently collected. Attendance cards for each reporting period are used by the local Superintendents of Schools to report new entrants, re-entrants, and withdrawals from the total school population by grade but no breakout of special education data exists.

Due to the lack of a structured diagnostic reporting system (i.e., all or most of the diagnoses reported to a central source, e.g., the local school district), the number of children newly diagnosed as needing special education cannot now be completely and accurately collected in New Mexico. The local district is recommended as the central source because it is there that a child is processed to determine eligibility for special education and admitted into a program. Division of Special Education personnel indicated that the diagnostic report is returned to the source of referral; if this source is not an official of the local district, the local district will have no knowledge of the child's need for special education unless he is presented for admission.

However, this practice could be altered with the issuance of a policy directive from the office of the State Superintendent of Public Instruction, who must approve all diagnosticians in New Mexico, to effect the notification of the applicable local school district by the diagnostician(s) when a child is determined to need special education. The local district could then be queried about new entrants during the previous year to the identified handicapped child population (separated into those who are newly diagnosed and those who are intra-state transfers[1/]) on a simple matrix form at the beginning of the school year.

Information about attritions from the total identified handicapped child population should be easy to develop if the cooperation of the local school districts is obtained. Attrition data could be collected, by age, handicap, and reason for attrition (e.g., return to regular education, moved out of district), on a simple matrix form similar in design to those used to collect waiting list and entrants data.

[1/] new entrants to a local district who have been previously diagnosed by another district within the state.

Entrants and attritions should be kept by, and collected from, the local districts for the total identified population, not for the enrolled and waiting list populations separately. This will avoid possible double counting; a child who moves from the waiting list to the enrolled list should not be counted as an attrition or a new entrant—he has remained in the handicapped child population and merely changed his educational status.

Similar matrix forms could be used by the Division of Special Education to request entrants and attrition data from the state operated and privately operated programs. Here again, unless the state school, hospital or institution maintains an up to date waiting list, the validity of entrants and attrition data (especially these data relating to children on that waiting list) may suffer.

Other Data Elements

Projections of New Mexico's school age population, used in conjunction with incidence rates by the Manpower Requirements Projection Model to calculate the projected number of new entrants into the handicapped child population, are made annually, by grade, by a Research Analyst in the Division of Research, Department of Education. These projections could be translated into single year of age. However, because there exists some controversy about the validity of these projections, other government agencies, e.g., the Department of Finance and Administration, should be contacted to determine the possible existance of reliable and more detailed (i.e., by age) school age population projections.

The Director of the Division of Special Education and/or his staff can provide the data needed to simulate special education with a minimum of reporting of program policy from state operated and privately operated programs. Thus, little development effort is needed for these data elements:

- Trends in the number or proportion of enrolled children being served in each educational program, by target group (an educationally meaningful combination of handicapping condition and education level); termed educational program mix
- The types of personnel (occupations) serving each target group in each educational program and their associated personnel/pupil contact ratios.

If New Mexico wishes to collect data on the numbers of special education personnel employed, by type, in order to calculate the current manpower gap, data development for local districts could be accomplished in conjunction with the development of local district enrollment data, i.e., the design of a Special Education Personnel Information request card and the addition of special education position codes. Special education administrators and paraprofessionals could also be reported on these cards if appropriate position codes are added and tabulated with modified assignment codes. The number of personnel employed in state operated and privately operated special education programs could be requested to be reported either on a simple matrix form or informally in a letter.

V. PROCESSING POTENTIAL

Within the Research Services branch of the Department of Education, the Division of Research is responsible for performing the systems analysis and the computer programming required to implement all approved data processing requests. Such requests are made directly to and are evaluated by the Director of the Division. At present, the staff of the Division of Research consists of the Director, who is a statistician/systems analyst, a senior analyst, a programmer/analyst, a part-time programmer trainee, a computer operator and three keypunchers. If availability does not become a constraint, such a staff is adequate to develop and implement a data summary type of special education information system in New Mexico.

The data processing hardware maintained by the Division of Research consists of an IBM-1401H with a line printer and card reader/punch and an IBM-514 Reproducer that punches mark-sense data cards. Such a hardware system is adequate to handle a data summary type of information system for the Division of Special Education but not to handle the Manpower Requirements Projection Model. In order to run the model, time on the Department of ADP computers, IBM System 360 Models 40 and 50, could be leased for $80.00 and $90.00 per hour respectively. It might be possible to obtain the small amount of computer time needed by the model, at no charge, on the University of New Mexico's IBM System 360 Model 50.

Dr. Hindman, the Director of the Division of Special Education, is in favor of using the mathematical model to project special education manpower requirements and for other state planning purposes—especially to validate the need for an increase in the legislature's legal limitation placed upon the number of children that can be served in special education. He and Dr. Jane Howard, the program specialist in the Division, are capable of preparing the input for and analyzing and evaluating the output from such a model and, although their work schedule is full, indicated a willingness to undertake any work necessary to assist and direct the implementation of a special education data collection and processing system.

VI. ADDITIONAL FACTORS

Within the New Mexico state government, the Division of Health and Social Services, Department of Health, and the Division of Public School Finance, Department of Finance and Administration, both expressed interest in the outputs of the special education Manpower Requirements Projection

Model. The former division could use the handicapped child population projections to estimate the number of children that will move from special education services to the services provided by the Department of Health. The latter could use the results of the manpower and handicapped child projections to estimate budget requirements.

At the present time, the New Mexico State Legislature imposes an upper limit on the number of children that can be served in special education programs in each school district. For the 1969-70 school year, this limit was 2% of the school age population in the district; the Director of the Division of Special Education is trying to change the limit to 3% for the 1970-71 school year.

Although the category "speech handicapped" is defined in the booklet "Minimum Standards for New Mexico Schools" as to be included in the special education curriculum, the Division of Special Education has no authority to approve the hiring of speech clinicians. Since the local school districts must hire these clinicians with their existing regular education funds and since school districts have many more pressing uses for their funds, there are very few speech clinicians employed, and thus few special education services for speech handicapped children, in the state. According to an audiologist at the Speech and Hearing Clinic in Albuquerque, there are currently about 16 public school speech clinicians employed in the entire state, seven of whom are Title VI employees. He also indicated that the prevalence of children needing speech therapy is higher in New Mexico than in most states because of the large Mexican and Indian populations.

By statute, it is mandated that a census of all handicapped children be conducted, and its results published annually. Some school districts conduct a door to door type of census, with no diagnostic check on the data reported. Other districts send a census form (see page D31-23) home with every child; since the form is filled out by the parents, the data is inaccurate and inflated (e.g., a parent having two children fills out two forms). In both instances, since there is no diagnostic basis for the reported data, the data is not reliable — especially for handicapped categories for which there is a social stigma attached (e.g., a parent will probably not report his child as being emotionally disturbed; he will most likely not report him as handicapped at all or will report him as having a different handicap such as hard of hearing). The tabulated census results (similar in format to the Superintendent's Summary Report on page D31-24) show the unreliability of the data collected in this manner. For this reason it is not recommended that this data be included in any special education information system in New Mexico.

VII. RECOMMENDATIONS

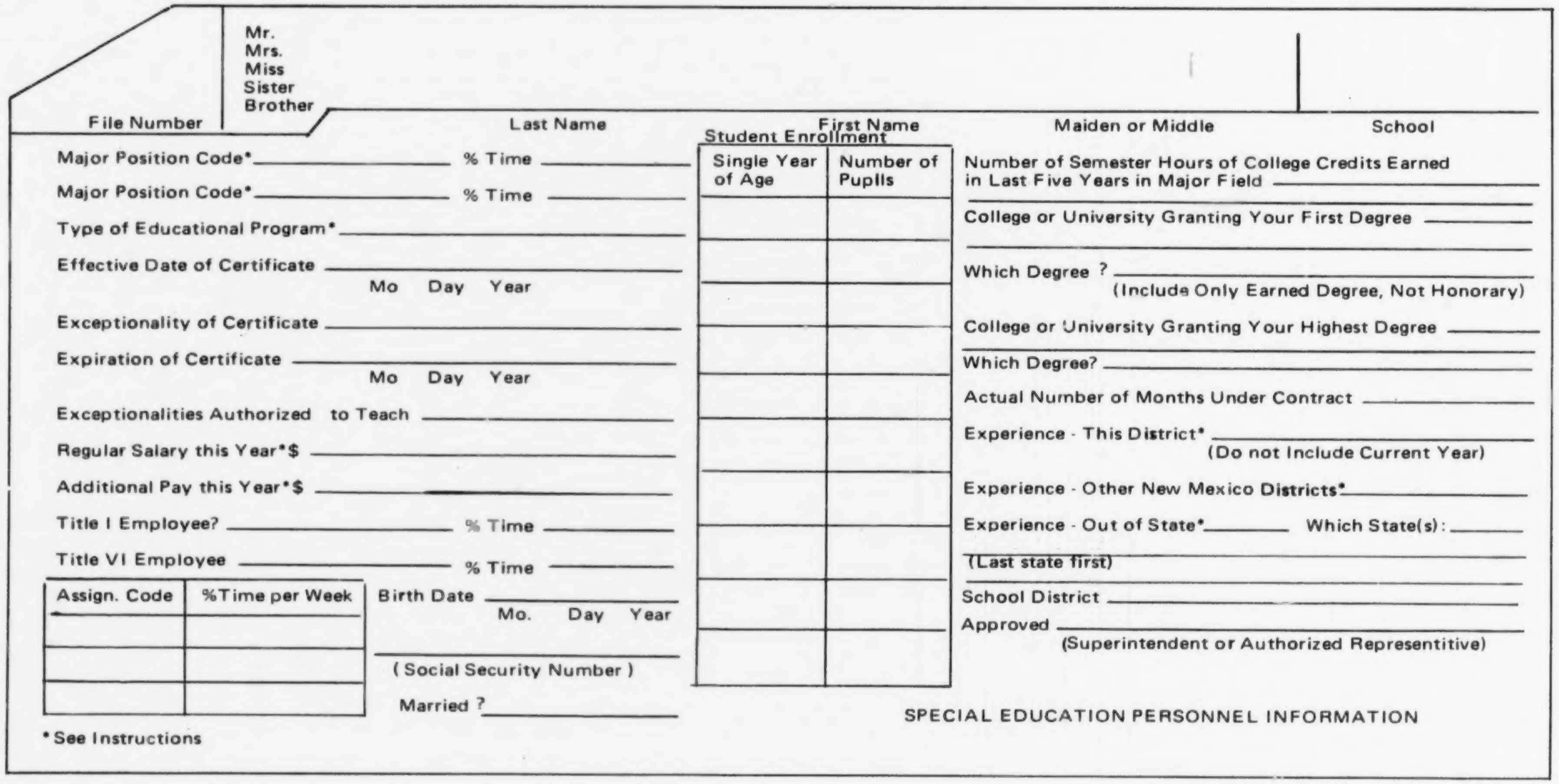
In order to provide for data needs of the Manpower Requirements Projection Model and other data requirements of the Division of Special Education, it is recommended that New Mexico consider implementing a detailed data summary type of information and processing system (one in which the data elements are summarized into categories by the local districts and other data sources and are used in summary form by the state information system). To intia[illegible]his system, a Special Education Personnel Information request card could easily be designed, similar to the current Personnel Information cards, to collect from each teacher in the local districts a summary, by age, of the children enrolled in his special education class(es). Simultaneously, special education position codes should be added to the coding scheme presented in the instruction booklet and special education assignment codes should be modified. Examples of a Special Education Personnel Information request card and possible changes to the current coding scheme are presented in Figure 2 and Table 1 respectively.

It is recommended that the remaining data for the data summary system be collected on simple matrix forms. Enrollment and waiting list data for state operated and privately operated special education programs and waiting list data for locally operated ones should be requested on a matrix in which each row is a single year of age and each column is a handicapping condition.

Similar matrices should be used by all sources to report entrants to and attritions from the total identified handicapped child population. These data summary matrices should have subcategories within each handicapping condition: subcategories for source (newly diagnosed and intrastate transfer) in the entrants matrix form; and subcategories for reason (return to regular education, moved, etc.) in the attrition matrix form. An example of a simple matrix form, one for reporting new entrants, is presented in Figure 3. Blank copies of these matrix forms can be used, by the local districts and other data sources, in a hash-mark fashion to record the data during the year. The totals could then be transferred to a new set of matrix forms for transmittal to the Division of Special Education.

The timing of the data flow in a data summary type of system is very important. All enrollment data and personnel employment data should continue to be reported as of the beginning of the school year, as of October 1. All waiting list data should also be reported at that time.

There are two alternatives to the timing of the entrants and attrition data reports. The reports can be made once a year or periodically during the year. If the former schedule is selected, the reports should be completed as of October 1 and should contain the data for the previous data year—thus, an attrition report sent to the Division of Special Education on October 1, 1971, would contain the number of children that had attritted from the identified handicapped child population during the year, October 1, 1970, to September 30, 1971. If the latter schedule is selected, the final periodic reports should be sent to the Division of Special Education by October 1 and should reflect all entrants



File Number

Mr.
Mrs.
Miss
Sister
Brother

Last Name

First Name

Maiden or Middle

School

Major Position Code*________ % Time ________

Major Position Code*________ % Time ________

Type of Educational Program*________

Effective Date of Certificate ________
Mo Day Year

Exceptionality of Certificate ________

Expiration of Certificate ________
Mo Day Year

Exceptionalities Authorized to Teach ________

Regular Salary this Year*$ ________

Additional Pay this Year*$ ________

Title I Employee? ________ % Time ________

Title VI Employee ________ % Time ________

Assign. Code	%Time per Week

Birth Date ________
Mo. Day Year

____
(Social Security Number)

Married ?________

*See Instructions

Student Enrollment

Single Year of Age	Number of Pupils

Number of Semester Hours of College Credits Earned in Last Five Years in Major Field ________

College or University Granting Your First Degree ________

Which Degree ? ________
(Include Only Earned Degree, Not Honorary)

College or University Granting Your Highest Degree ________

Which Degree? ________

Actual Number of Months Under Contract ________

Experience - This District* ________
(Do not Include Current Year)

Experience - Other New Mexico Districts*________

Experience - Out of State*________ Which State(s): ________

(Last state first)

School District ________

Approved ________
(Superintendent or Authorized Representitive)

SPECIAL EDUCATION PERSONNEL INFORMATION

FIGURE 2. EXAMPLE OF A REQUEST CARD FOR SPECIAL EDUCATION PERSONNEL INFORMATION THAT INCLUDES ENROLLMENT BY AGE, HANDICAPPING CONDITION, AND EDUCATIONAL PROGRAM

TABLE 1.

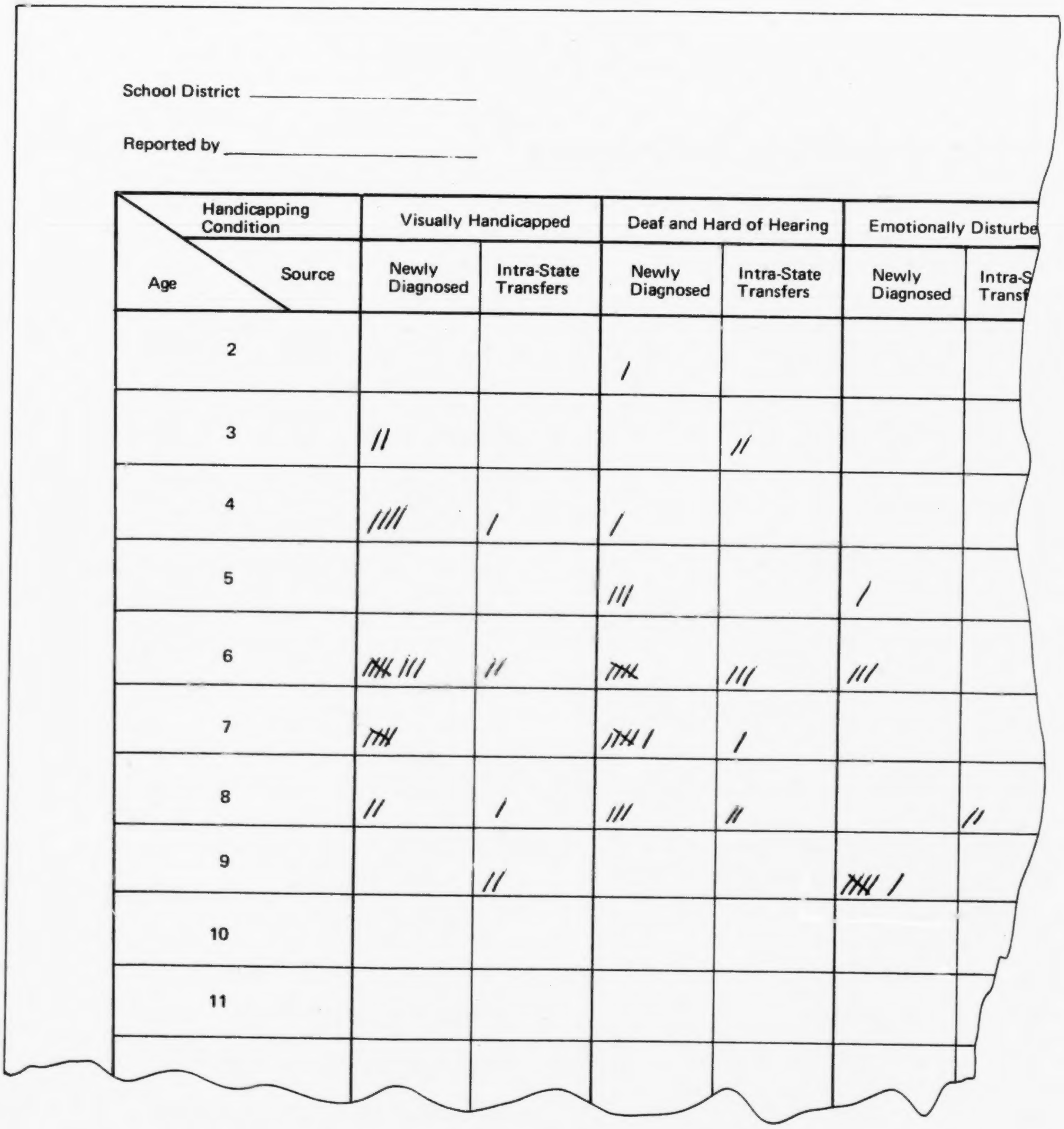
EXAMPLES OF MODIFICATIONS TO AND/OR ADDITIONS TO THE CURRENT CODING SCHEME FOR USE ON A SPECIAL EDUCATIONAL PERSONNEL INFORMATION CARD

Additional Position Codes

Code	Description
60	Director of Special Education
62	Elementary Special Education Teacher
63	Secondary Special Education Teacher
64	Speech Clinician
66	Special Education Teacher Assistant—Elementary
67	Special Education Teacher Assistant—Secondary
68	Special Education Teacher Aide—Elementary
69	Special Education Teacher Aide—Secondary

Modified Assignment Codes for Special Education

Special Education	Description
060	Visually Handicapped
061	Deaf and Hard of Hearing
062	Emotionally Disturbed
063	Educable Mentally Retarded
064	Trainable Mentally Retarded
065	Physically Handicapped
066	Special Learning Disabilities
067	Speech Handicapped



School District ____________

Reported by ____________

Handicapping Condition / Age / Source	Visually Handicapped		Deaf and Hard of Hearing		Emotionally Disturbe	
	Newly Diagnosed	Intra-State Transfers	Newly Diagnosed	Intra-State Transfers	Newly Diagnosed	Intra-S Transf
2			/			
3	//			//		
4	////	/	/			
5			///		/	
6	𝍸 ///	//	𝍸	///	///	
7	𝍸		𝍸 /	/		
8	//	/	///	//		//
9		//			𝍸 /	
10						
11						

FIGURE 3. EXAMPLE OF SIMPLE MATRIX FORM USED TO COLLECT LOCAL DISTRICT DATA ABOUT NEW ENTRANTS TO THE HANDICAPPED CHILD POPULATION DURING THE YEAR AND EXAMPLE OF HASH-MARK ENTRIES

and attritions since the previous periodic reports so that entrants and attritions occurring during the summer months will be recorded and reported.

The data summary matrix forms recommended can easily be keypunched and then tabulated on the computer in the Division of Research. The keypunching and data processing of the new Special Education Personnel Information request cards will be very similar to that currently performed for the existing Personnel Information cards.

VIII. RESOURCE REQUIREMENTS—MANPOWER

In order to implement the recommended data summary system in New Mexico, it is estimated that one man-month will be required to design the data collection instruments and to obtain approval of the new forms. In addition, approximately four man-weeks of a systems analyst/programmer's time will be required to accomplish the required systems design and computer programming/debugging for the data summary system.

The task of coordinating with the local districts (i.e., training local district personnel to fill out the new forms, engendering local support for the information system, and ensuring completeness and validity of the reported data) should be done by the staff of the Division of Special Education, because they are the only state level personnel that are familiar enough with the situations in the local districts to make accurate judgments about the completeness and validity of the data. This effort is estimated to require about 3 man-months. Since the current staff has a relatively large workload, a part-time coordinator may have to be employed to assist the staff in this task during the big push to get the system initiated, i.e., the first year of any systems implementation. Thereafter, the task of ensuring that the data is reliable will require approximately 1 man-month of effort annually on the part of the Division's staff; the majority of that effort will be directed toward the training of personnel and the setting up of reporting procedures for new special education programs.

The Director of the Division of Special Education, by virtue of his position and influence, is probably the only person who can arrange for the cooperation of state sponsored programs and the office of the Superintendent of Public Instruction and who can approach the privately sponsored programs. The amount of time that this will take is dependent upon the attitudes and the organizational structure of all the agencies and organizations involved.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Miss Beverly Johns, during the week of 20 October 1969 were:

Dr. Mildred Fitzpatrick	Planning Coordinator, Instructional Services, Department of Education
Dr. Darrell A. Hindman	Director, Division of Special Education, Instructional Services, Department of Education
Dr. Jane O. Howard	Instructional Services and Materials Specialist, Division of Special Education
Mr. Henry Borgrink	Director of Statistics, Division of Research, Research Services, Department of Education
Dr. Marchia Meeker	Research Analyst, Division of Research
Mr. William Priddy	Systems Analyst, Division of Research
Mr. Doyle Eakens	Title I Evaluator, ESEA Services, Department of Education
Mr. Donald Harvey	Coordinator of Funds Management, ESEA Title I and PL 89-313 Projects, ESEA Services
Dr. Woodrow Mayhon	Administrator, Title III Programs, Instructional Services
Mr. James West	Division of Vocational Education, Department of Education
Mr. John P. Best	Superintendent, School for the Visually Handicapped
Mr. Vincent F. Svaldi	Principal, School for the Visually Handicapped
Mr. James Little	Superintendent, School for the Deaf

Mrs. Maxine Gerhart	Administrative Assistant, Division of Public School Finance, Department of Finance and Administration
Mrs. Priscilla Beggs	Chief, Statistical Analysis Section, Division of Health and Social Services, Department of Health
Mrs. Charlene Wilson	Administrative Assistant, Mental Retardation Section, Division of Health and Social Services
Mrs. Jean C. Beardsley	Administrator, Division of Education and Training, Department of Hospitals and Institutions
Mr. Roger Adams	Assistant Administrator, Los Lunas Hospital and Training School, Division of Education and Training
Mr. James Garitson	Superintendent, Boy's School at Springer
Mrs. Ross	Librarian, State Library
Mrs. Carmella Ruby	Librarian, State Library
Mrs. Marsha Shannon	Librarian, State Library
Miss Eloise Kennedy	Teacher Trainer, Deaf and Hard of Hearing, Eastern New Mexico University
Mr. Lloyd Lamb	Audiologist, Speech and Hearing Clinic, Albuquerque
Dr. Wanda Graham	Curriculum Consultant, Regional Resource Center at Las Cruzes
Dr. David Hayden	Educational Diagnostician, Regional Resource Center at Las Cruzes
Dr. Kelling	Psychologist, Federal Project, Catholic University of America

X. CURRENT REPORT FORMATS

- Application for Approval of a Special Education Program...
- Application for Approval of a Special Education Program...
  Special Education—Non-Profit Training Centers
- Elementary Personnel Information card
- Secondary Personnel Information card
- Attendance card
- Census Enumeration sheets
- Superintendent's School Census Summary Report

STATE OF NEW MEXICO
DEPARTMENT OF EDUCATION
SANTA FE

PLEASE COMPLETE IN TRIPLICATE
AND RETURN PRIOR TO JUNE 15
TO THE
DIVISION OF SPECIAL EDUCATION

APPLICATION FOR APPROVAL OF A SPECIAL EDUCATION PROGRAM AS PER SECTION 77-6-19, NMSA

School District ____________________ County ____________________

Name of School ____

NEW CLASS ☐ CONTINUING CLASS ☐

Pursuant to the requirements of the law providing for Special Education programs, we submit the following application:

1. Primary exceptionality ____________________
(trainable mentally retarded, educable mentally retarded, emotionally disturbed, physically handicapped, etc.)
2. Class to begin (date) ____________________ end ____________________
3. Class hours ____________________
4. Grade range of students: Grade ____________________ to ____________________
5. Age range of students: ____________________ to ____________________
6. Anticipated ADM of class: ____________________
7. Does the teacher have a Special Education endorsement? Yes ______ No ______
If "No" please explain ____
____
8. Who has the administrative responsibility for this class? ____________________
____
9. Have the children's parents been consulted? Yes ______ No ______
10. What professional opinions were used in diagnosing and recommending for placement in the class?
____
____
____
11. Describe your general procedure for determining eligibility of pupils:
____
____
____

I hereby certify that th ... escribed has been approved by the local board of education on the ... ______________. We recognize that approval of this class depe ... arrying out the plan of Special Education herein included and as ... the "Standards for New Mexico Schools."

(REPRODUCED FROM STATE FORM)

____________________ Date of Application

____________________ Superintendent of Schools

For Department of Education Use Only

(Review and approval information is recorded here by the Director, Division of Special Education and the Superintendent of Public Instruction.)

DSI-19

STATE OF NEW MEXICO
DEPARTMENT OF EDUCATION
SANTA FE

PLEASE COMPLETE AND RETURN FOUR COPIES
PRIOR TO JULY 1
TO THE DIVISION OF SPECIAL EDUCATION

APPLICATION FOR APPROVAL OF A SPECIAL EDUCATION PROGRAM
AS PER SECTION 77-11-3.1
SPECIAL EDUCATION -- NONPROFIT TRAINING CENTERS

School District: ______________________________ County: ______________

Name of
Nonprofit Center: ____

Address: ______________________________________ Phone: ______________

NEW CLASS ☐ CONTINUING CLASS ☐

Pursuant to the requirements of the law providing for Special Education programs under agreements with nonprofit training centers, we submit the following application:

1. Primary exceptionality: ______________________
   (trainable mentally retarded, educable mentally retarded, emotionally disturbed, physically handicapped, etc.)
2. Class to begin (date) ______________ end ______________
3. Class hours: ______________
4. Achievement level of students: Pre-first ☐ Primary (1-3) ☐ Intermediate (4-6) ☐ Pre-vocational (7-9) ☐ Vocational (10-12) ☐
5. Age range of students: __________ to __________
6. Anticipated ADM of class: ______________
7. Name of teacher: ______________________
   a. Does teacher have Special Education Endorsement? Yes ☐ No ☐
      (If No, please explain: ______________________________
      ____)
   b. Is a substitute teacher available? Yes ☐ No ☐
   c. Does a School Aide assist with this class? Yes ☐ No ☐
8. a. Public School official having administrative responsibility for this class:
      ____
   b. Nonprofit center official having administrative responsibility for this class: ______________________
9. Have the children's parents been consulted? Yes ☐ No ☐
10. What professional opinions were used in diagnosing and recommending for placement in the class?

(REPRODUCED FROM STATE FORM)

11. Describe your general procedure for determining eligibility of pupils: ____

____

____

____

I hereby certify that the program as described has been approved by the local board of education on the date of ________________.

Date of Application	Superintendent of Schools

==

For Department of Education Use Only

APPLICATION REVIEWED
Recommendation: ____________________
____

____
Director, Division of Special Education

Date: ________________

Date: ________________

TENTATIVE APPROVAL IS HEREBY GRANTED, subject to review:'

____
SUPERINTENDENT OF PUBLIC INSTRUCTION

FINAL APPROVAL GRANTED:

____
SUPERINTENDENT OF PUBLIC INSTRUCTION

APPROVED COPY FOR:
___ Chief, Public School Finance
___ Local Superintendent of Schools
___ Nonprofit Training Center
___ File, Division of Special Education

(REPRODUCED FROM STATE FORM)

FILE NUMBER
MR.
MRS
MISS
SISTER
BROTHER
LAST NAME
FIRST NAME
MIDDLE OR MAIDEN
SCHOOL

MAJOR POSITION CODE*________ % TIVE________

MINOR POSITION CODE*________ % TIME________

EFFECTIVE DATE OF CERTIFICATE ________ MO. DAY YR.

EXPIRATION DATE OF CERTIFICATE ________ MO. DAY YR.

SUBJECTS AUTHORIZED TO TEACH ________

REGULAR SALARY THIS YEAR* $________

ADDITIONAL PAY THIS YEAR* $________

TITLE I EMPLOYEE ?________ % TIME________

BIRTHDATE ________ MO. DAY YR

NUMBER OF SEMESTER HOURS OF COLLEGE CREDITS EARNED IN LAST FIVE YEARS IN MAJOR FIELD________

________ (SOCIAL SECURITY NUMBER)

MARRIED________ NOT MARRIED________

ELEMENTARY PERSONNEL INFORMATION

ASSIGN. CODE	NUMBER PUPILS	% TIME PER WEEK

ASSIGNMENT CODES

- 00 - Kindergarten
- 01 - Grade One and/or legal school age
- 02 - Grade Two
- 03 - Grade Three
- 04 - Grade Four
- 05 - Grade Five
- 06 - Grade Six
- 07 - Grade Seven
- 08 - Grade Eight
- 19 - Handicapped
- 18 - Ungraded

ACTUAL NUMBER OF MONTHS UNDER CONTRACT________

EXPERIENCE-THIS DISTRICT*________ (DO NOT INCLUDE CURRENT YEAR)

EXPERIENCE-OTHER NEW MEXICO DISTRICTS*________

EXPERIENCE-OUT OF STATE*________ WHICH STATE(S):

________ (LAST STATE FIRST)

COLLEGE OR UNIVERSITY GRANTING YOUR FIRST DEGREE________

WHICH DEGREE?________ (INCLUDE ONLY EARNED DEGREE, NOT HONORARY)

COLLEGE OR UNIVERSITY GRANTING YOUR HIGHEST DEGREE________

WHICH DEGREE?________

*SEE INSTRUCTIONS

Elem Personnel

IBM M75484

FILE NUMBER
MR
MRS
MISS
SISTER
BROTHER
LAST NAME
FIRST NAME
MIDDLE OR MAIDEN
SCHOOL

MAJOR POSITION CODE*________ % OF TIME________

MINOR POSITION CODE*________ % OF TIME________

EFFECTIVE DATE OF CERTIFICATE________ MO. DAY YR

EXPIRATION DATE OF CERTIFICATE________ MO. DAY YR

SUBJECTS AUTHORIZED TO TEACH ________

REGULAR SALARY THIS YEAR* $________

ADDITIONAL PAY THIS YEAR* $________

TITLE I EMPLOYEE________ % TIME________

BIRTHDATE________ MO. DAY YR

NUMBER OF SEMESTER HOURS OF COLLEGE CREDITS EARNED IN LAST FIVE YEARS IN MAJOR FIELD________

________ (SOCIAL SECURITY NUMBER)

MARRIED________ NOT MARRIED________

PERIOD NO.	SUBJECT CODE *	NUMBER OF PUPILS IN THIS CLASS	PERIODS PER WEEK
1			
2			
3			
4			
5			
6			
7			
8			

ACTUAL NUMBER OF MONTHS UNDER CONTRACT________

EXPERIENCE-THIS DISTRICT*________ (DO NOT INCLUDE CURRENT YEAR)

EXPERIENCE-OTHER NEW MEXICO DISTRICTS*________

EXPERIENCE-OUT OF STATE*________ WHICH STATE(S)?

________ LAST STATE FIRST

COLLEGE OR UNIVERSITY GRANTING YOUR FIRST DEGREE ________

WHICH DEGREE? ________ (INCLUDE ONLY EARNED DEGREES, NOT HONORARY)

COLLEGE OR UNIVERSITY GRANTING YOUR HIGHEST DEGREE________

WHICH DEGREE? ________

REPRODUCED FROM STATE FORMS

*SEE INSTRUCTIONS

Sec. Personnel

SECONDARY PERSONNEL INFORMATION

IBM M75485

Attendance Cards.

DO NOT MARK ABOVE THIS LINE

NOTE: USE ONLY ELECTROGRAPHIC MARK SENSING PENCIL. EVERY COLUMN MUST BE MARKED. IF THERE IS NO DIGIT FOR A COLUMN THE ZERO MUST BE MARKED. EXAMPLE: GRADE 4 SHOULD BE MARKED 04.

GRADE		REPORT PERIOD	DAYS ATTENDED						DAYS ABSENT				E-1 PUPILS				E-2 PUPILS		R-1 PUPILS		R-2 PUPILS		W-1 PUPILS		W-2 PUPILS	
⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃
⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃		⊂1⊃	⊂1⊃	⊂1⊃		⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃
⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃		⊂2⊃	⊂2⊃	⊂2⊃		⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃
⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃		⊂3⊃	⊂3⊃	⊂3⊃		⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃
⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃		⊂4⊃	⊂4⊃	⊂4⊃		⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃
⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃
			ATTENDANCE						ABSENCE				ENROLLMENTS						RE-ENTRIES				WITHDRAWALS			
⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃		⊂6⊃	⊂6⊃	⊂6⊃		⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃
⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃		⊂7⊃	⊂7⊃	⊂7⊃		⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃
⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃		⊂8⊃	⊂8⊃	⊂8⊃		⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃
⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃		⊂9⊃	⊂9⊃	⊂9⊃		⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃
1 2 3	4 5 6	7 8 9	10 11 12	13 14 15	16 17 18	19 20 21	22 23 24	25 26 27	28 29 30	31 32 33	34 35 36	37 38 39	40 41 42	43 44 45	46 47 48	49 50 51	52 53 54	55 56 57	58 59 60	61 62 63	64 65 66	67 68 69	70 71 72	73 74 75	76 77 78	79 80
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27

DEPARTMENT OF EDUCATION
STATE OF NEW MEXICO
SANTA FE

IBM M28937

Booklet of
Census sheets

CENSUS ENUMERATION

School District Name and Number------------------------------------
School Administrative Unit Address------------------------------------

I hereby declare under oath that the information contained herein is a true and correct statement of the facts given to the best of my knowledge and belief, and that the children named herein resided in the school district at the time of making census.

-------------------------------------- Enumerator

Subscribed and sworn to before me this--------------- day of--------------- ,19---------

-------------------------------------- Superintendent

( ) Name of Parent
( ) (or Guardian) --

Street Address------------------------------------City or Town------------------------------------

NAME OF CHILD		Sex	DATE OF BIRTH			AGE	Handicapped (indicate type)
			Mo.	Day	Year		

(REPRODUCED FROM STATE FORM)

( ) Name of Parent
( ) (or Guardian) --

Street Address------------------------------------City or Town------------------------------------

NAME OF CHILD		Sex	DATE OF BIRTH			AGE	Handicapped (indicate type)
			Mo.	Day	Year		

1969

SUPERINTENDENT'S SCHOOL CENSUS SUMMARY REPORT

____
Administrative Unit

CENSUS ENUMERATION BY AGES

Special Column:

Report 5-year-old children only	Boys	Girls	Total

TABLE 1

(Include in this table, all children ages 6-17, including handicapped)

Age	Number		Totals Across
	Boys	Girls	
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
Total			

(REPRODUCED FROM STATE FORM)

TABLE 2

(Enumerate in this table number of handicapped children only by type of handicap)

Kind of Handicap	Number Boys		Number Girls		Totals Across
	In School	Not In School	In School	Not In School	
Hearing Difficulty					
Speech Defect					
Vision Difficulty					
Mental Retardation					
Physically Handicapped					
Emotionally Disturbed					
Totals					

The above is a true and correct statement of the number of children enumerated in the district.

SUMMARY OF DATA DEVELOPMENT STATUS

TABLE 2 NEW MEXICO

DATA ELEMENTS			Local Public School Districts			State Schools, Hostpitals, and Institutions			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Not available in usable form	Request totals on a newly designed personnel information card for special education, then tabulate	Classroom teacher through local school district office	Not transmitted to Division of Special Education	Develop simple matrix forms	Administrator of the Special Education Program at each location	On a voluntary basis, data could be requested to be transmitted on modifications of the simple matrix forms used by local school districts
		HANDICAPPING CONDITION							
		EDUCATION PROGRAM							
	ON WAITING LIST	AGE	Not available	Develop simple matrix form	Person responsible for special education in local school district office				
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available	Develop simple matrix forms	Person responsible for special education in local school district office	Not transmitted to Division of Special Education	Develop simple matrix forms	Administrator of the Special Education Program at each location	
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	AGE							
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE							
		HANDICAPPING CONDITION							
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Available only by grades 1-12	Translate to age or check other State dept.	Research Div., Dept. of Ed., or Dept. of Fin. (SIC)				
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Available as defined by legislation, policy, and planning	Not applicable	Staff of Division of Special Education	Not transmitted to Division of Special Education	Request information about individual program policy	Administrator of the Special Education Program at each location	Request voluntary information about individual school policy
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP							
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Not available	Design a special education personnel information request card	Special education personnel	Not transmitted to Division of Special Education	Develop simple matrix form		Request voluntary information from each school

NEW YORK STATE ANALYSIS REPORT

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I. INTRODUCTION D32-1
II. SUMMARY D32-2
III. RESPONSIBILITIES FOR SPECIAL EDUCATION D32-2
IV. DATA ELEMENT EVALUATION D32-4
V. PROCESSING POTENTIAL D32-8
VI. ADDITIONAL FACTORS D32-8
VII. RECOMMENDATIONS D32-14
VIII. RESOURCE REQUIREMENTS—MANPOWER D32-18
IX. PERSONS INTERVIEWED D32-20

The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

NEW YORK STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs The model has been designed for application by state education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of New York, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

New York State is in an ambiguous position with respect to its ability to implement the proposed Manpower Requirements Projection Model. On one hand, the state has excellent data collection mechanisms in its "Annual Census Report of Handicapped Children" and "Basic Educational Data System." It also has an Information Center on Education which, among other responsibilities, coordinates data collection activities between state and local educational agencies. On the other hand, difficulties are posed by the fact that New York's large cities do not participate in the "Annual Census Report of Handicapped Children." Another hampering factor is that the Division of Handicapped Children does not have the manpower to support the model, since 50 percent of its authorized positions are vacant. These problems are not insurmountable however; the former might be handled through estimation, and the latter could be overcome through the services of a consultant.

The hardware and software of the Information Center on Education is certainly adequate to support the model. This data processing capability will be increased as more regional data processing centers on education are established. These regional centers will be able to utilize the model in determining future regional manpower needs in the area of special education.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The informal organization chart shown in Figure 1 illustrates the division of responsibility for service to handicapped children in New York. Only those organizations having educational or informational service functions for exceptional children have been shown. The Division for Handicapped Children of the State Department of Education has the administrative responsibility for "mentally handicapped," and "emotionally disturbed" children. These three broad categories were defined in Chapter 786 of the Laws of New York in May of 1967 to minimize the possible effects of "labeling" handicapped children. For planning purposes, the Division of Special Education and the Information Center on Education employ standard terminology, however, in data collection activities. The only further breakdown within these legal categories are the "mentally retarded" and "severely retarded" classifications of the mentally handicapped area.

The Division of Mental Retardation of the State Department of Mental Hygiene has responsibility for the schools for the mentally retarded, while the Division of Local Services administers the clinics and day care centers for the mentally retarded and the residential treatment centers for the emotionally disturbed.

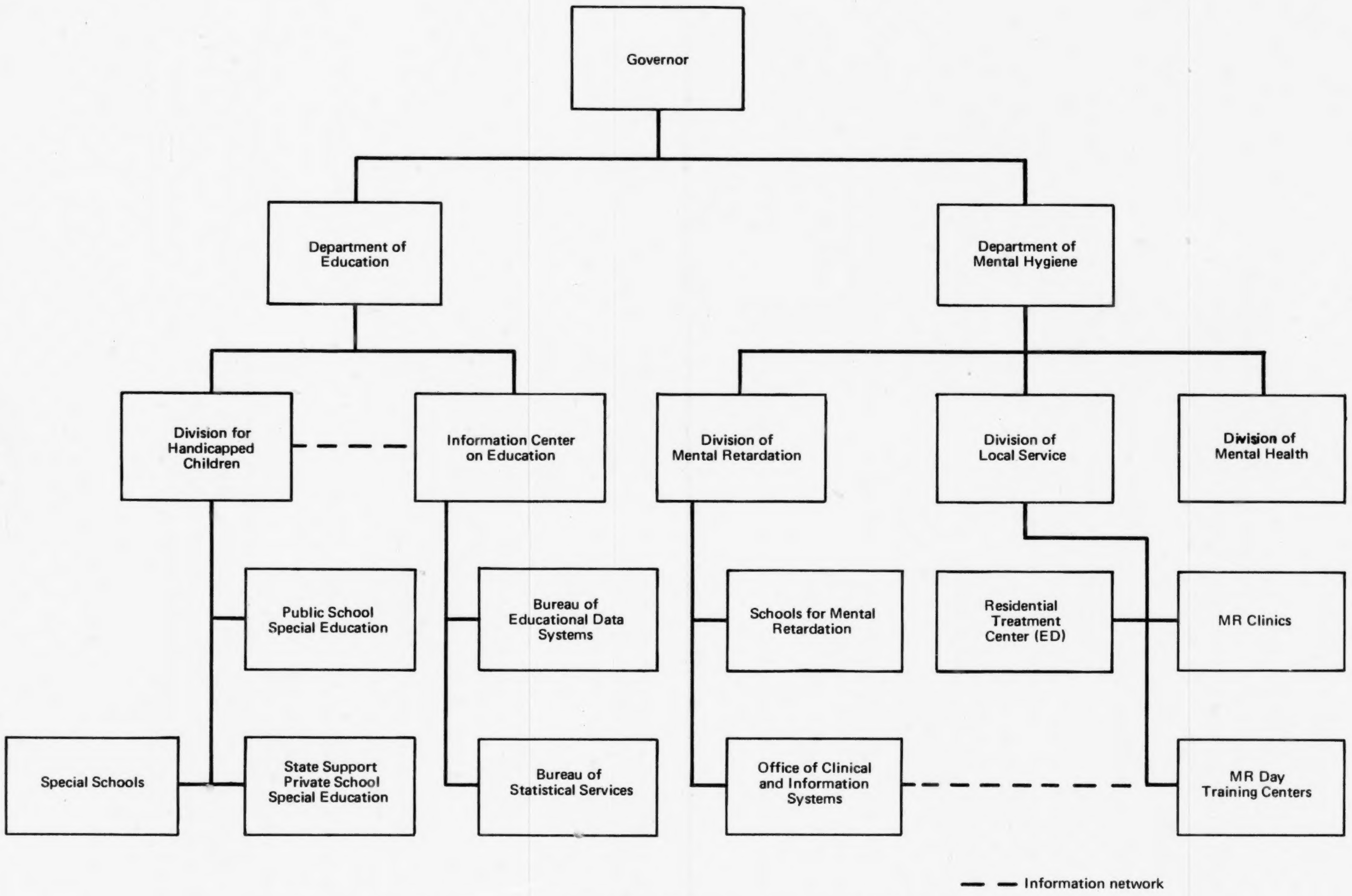

Governor
Department of Education
Department of Mental Hygiene
Division for Handicapped Children
Information Center on Education
Division of Mental Retardation
Division of Local Service
Division of Mental Health
Public School Special Education
Bureau of Educational Data Systems
Schools for Mental Retardation
Residential Treatment Center (ED)
MR Clinics
Special Schools
State Support Private School Special Education
Bureau of Statistical Services
Office of Clinical and Information Systems
MR Day Training Centers
Information network

FIGURE 1. ORGANIZATION OF EDUCATIONAL AND INFORMATIONAL SERVICES FOR HANDICAPPED CHILDREN IN NEW YORK STATE

IV. DATA ELEMENT EVALUATION

Some specific data elements are necessary to the use of the projection model. The information which these data elements provide may also be very useful to the Division for Handicapped Children for other operational analyses. These data elements and their potential sources are discussed in the following paragraphs.

Number of Children Identified as Needing Special Education

Enrollment. In November of each year, school districts in New York State are required to file with the Bureau of Statistical Services of the State Education Department, an annual census report of physically handicapped, mentally retarded, and emotionally disturbed children. For each new child enrolled in a public school system, a census card is completed. (See Figure 2.) For children who have been previously reported, the school district superintendents are only required to update the computer listing of handicapped children reported the previous year. (See Figure 3 for a sample page of this listing.)

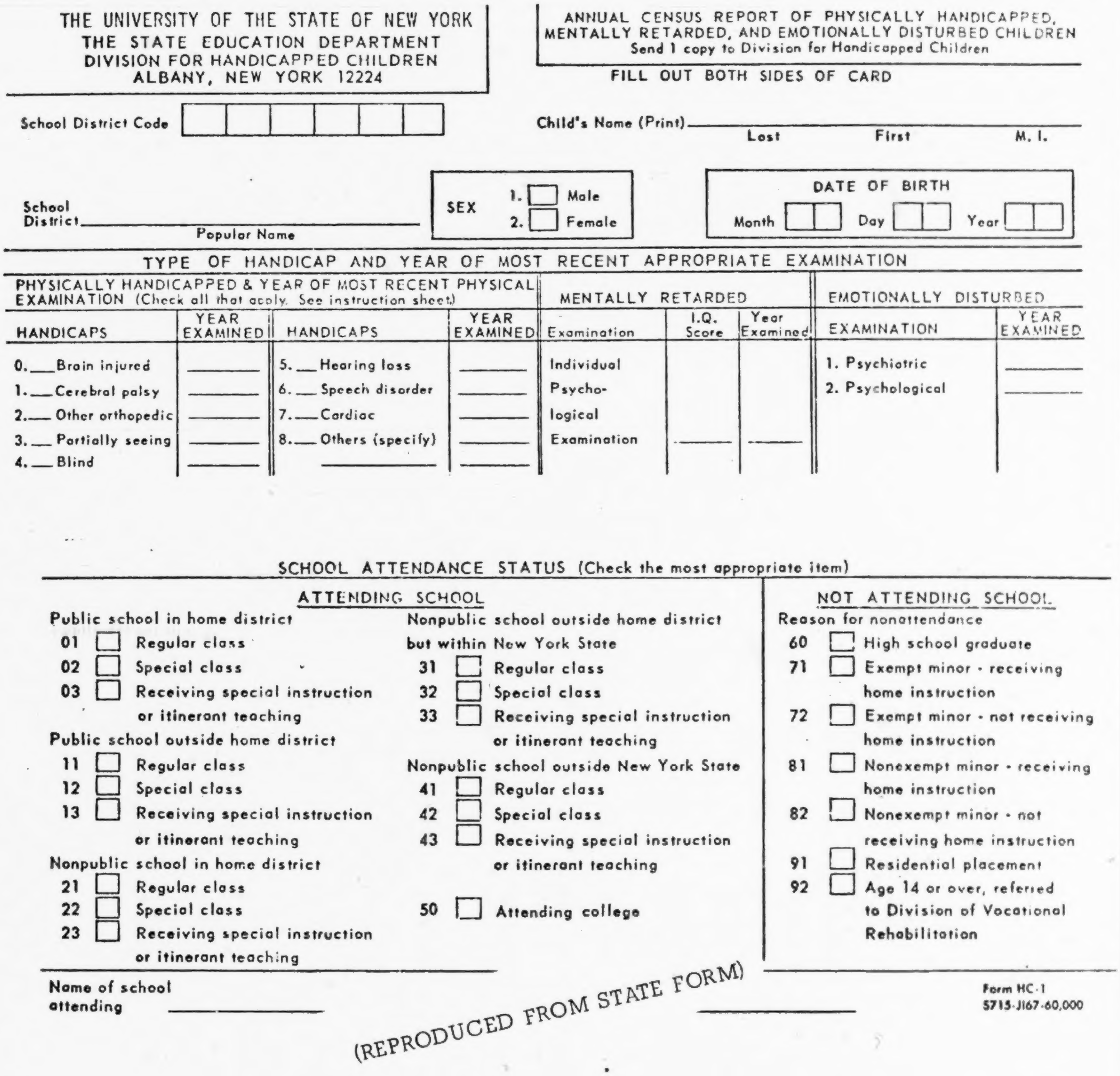
The cities of New York, Rochester, and Buffalo have not been required to participate in the handicapped child census because of the reporting burden that such a census would place on these districts. The Director of the New York State Information Center on Education feels, however, that the handicapped child populations could be estimated from those districts that do report.

The New York State Department of Education also captures enrollment data on special education pupils through its Basic Education Data System (BEDS). The State Information Center on Education administers BEDS and fairly accurate data has been obtained on public and state-supported private school programs. BEDS special education enrollment data, however, summarize enrollments; the total number of handicapped pupils, by elementary and secondary level of attainment, is the only item reported.

Waiting List. At the present time, complete waiting list data for most school districts is available at the state level. The "Annual Census Report" card form includes a section on reasons for handicapped children not attending school. Code 82 in that section specifically refers to the non-exempt minor not receiving special education and not receiving home instruction. Since New York, Rochester, and Buffalo do not participate in the annual census, waiting list data for these cities, like enrollment, would have to be estimated.

Number of Children Moving Into and out of the Handicapped Child Population

Newly Diagnosed. In order to obtain the number of children who have been newly diagnosed as needing special education, New York may have to rely on its proposed regional data processing centers for education. Qualified diagnosticians could report to these regional centers all school-aged children determined eligible for special education programs. Reporting such children directly to the state might be impractical since there are thousands of diag-



THE UNIVERSITY OF THE STATE OF NEW YORK
THE STATE EDUCATION DEPARTMENT
DIVISION FOR HANDICAPPED CHILDREN
ALBANY, NEW YORK 12224

ANNUAL CENSUS REPORT OF PHYSICALLY HANDICAPPED, MENTALLY RETARDED, AND EMOTIONALLY DISTURBED CHILDREN
Send 1 copy to Division for Handicapped Children

FILL OUT BOTH SIDES OF CARD

School District Code ☐☐☐☐☐☐

Child's Name (Print) ______________________
Last First M. I.

School District ______________________
Popular Name

SEX 1. ☐ Male 2. ☐ Female

DATE OF BIRTH
Month ☐☐ Day ☐☐ Year ☐☐

TYPE OF HANDICAP AND YEAR OF MOST RECENT APPROPRIATE EXAMINATION

PHYSICALLY HANDICAPPED & YEAR OF MOST RECENT PHYSICAL EXAMINATION (Check all that apply. See instruction sheet)				MENTALLY RETARDED			EMOTIONALLY DISTURBED	
HANDICAPS	YEAR EXAMINED	HANDICAPS	YEAR EXAMINED	Examination	I.Q. Score	Year Examined	EXAMINATION	YEAR EXAMINED
0.___Brain injured	______	5.___Hearing loss	______	Individual			1. Psychiatric	______
1.___Cerebral palsy	______	6.___Speech disorder	______	Psycho-			2. Psychological	______
2.___Other orthopedic	______	7.___Cardiac	______	logical				
3.___Partially seeing	______	8.___Others (specify)	______	Examination	______	______		
4.___Blind	______	______	______					

SCHOOL ATTENDANCE STATUS (Check the most appropriate item)

ATTENDING SCHOOL

Public school in home district
01 ☐ Regular class
02 ☐ Special class
03 ☐ Receiving special instruction or itinerant teaching

Public school outside home district
11 ☐ Regular class
12 ☐ Special class
13 ☐ Receiving special instruction or itinerant teaching

Nonpublic school in home district
21 ☐ Regular class
22 ☐ Special class
23 ☐ Receiving special instruction or itinerant teaching

Nonpublic school outside home district but within New York State
31 ☐ Regular class
32 ☐ Special class
33 ☐ Receiving special instruction or itinerant teaching

Nonpublic school outside New York State
41 ☐ Regular class
42 ☐ Special class
43 ☐ Receiving special instruction or itinerant teaching

50 ☐ Attending college

NOT ATTENDING SCHOOL

Reason for nonattendance
60 ☐ High school graduate
71 ☐ Exempt minor - receiving home instruction
72 ☐ Exempt minor - not receiving home instruction
81 ☐ Nonexempt minor - receiving home instruction
82 ☐ Nonexempt minor - not receiving home instruction
91 ☐ Residential placement
92 ☐ Age 14 or over, referred to Division of Vocational Rehabilitation

Name of school attending ______________ ______________

Form HC-1
5715-J167-60,000

(REPRODUCED FROM STATE FORM)

FIGURE 2. CENSUS CARDS FOR ANNUAL REPORT OF HANDICAPPED CHILDREN

HANDICAPPED CHILDREN CENSUS REPORT HC-1A 09/09/69

SCHOOL DISTRICT CODE 28 05 17
POPULAR NAME HICKSVILLE
LEGAL NAME OYSTER BAY 17

THE STATE EDUCATION DEPARTMENT
DIVISION FOR HANDICAPPED CHILDREN
ALBANY
NEW YORK 12224

PAGE 1

LAST NAME	FIRST NAME	HI	SEX	BIRTH DATE MO/DA/YR	PHYSICALLY HANDICPPED TYPE - YR EXAMIED TP-YR	TP-YR	TP-YR	TP-YR	MENTAL RETARD IQ-YR	EMOTIONALLY DISTURBED TP-YR	TP-YR	ATTEND STATUS CODE	SCHOOL ATTENDING
ABBATE	CATHERINE ID 017040		F	09/17/54	7-65	-	-	-	-	-	-	21	HOLY FAMILY
ACERRA	JAMES ID 016971		M	03/13/53	8-66	-	-	-	-	-	-	21	ST IGNATIUS LOYOLA
ADAMY	HOWARD ID 017085		M	04/19/53	2-65	-	-	-	-	-	-	01	JUNIOR HIGH
AHLSEN	GRACE ID 016915		F	06/29/55	8-65	-	-	-	-	-	-	01	EAST STREET
ALFANO	JOHN ID 017005		M	06/26/55	2-66	-	-	-	-	-	-	21	OUR LADY OF MERCY
ALLAN	VERONICA ID 010518		F	*05/27/47*	2-64	-	-	-	-	-	-	60	
ALLEN	BARBARA ID 017086		F	04/24/51	2-66	-	-	-	-	-	-	01	JUNIOR HIGH
ALLEN	FRANK ID 016936		M	10/18/58	7-65	-	-	-	-	-	-	01	LEE AVENUE S
ALLEN	GAIL ID 010472		F	02/17/48	8-65			-	-	-	-	01	HICKSVILLE HS
ALLEN	JOHN ID 016981	F	M	08/		-	-	-	-	-	-	01	FORK LANE
ALLEN	JOHN ID 083366		M	.27/50	2-67	-	-	-	-	-	-	21	HOLY FAMILY CH S
ALLEN	ROBERT ID 017163		M	03/13/48	-	-	-	-	33-65	-	-	12	VEEB
ALLEN	SCOTT ID 017264		M	12/26/54	6-65	-	-	-	-	-	-	01	LEE AVE S

(REPRODUCED FROM STATE FORM)

FIGURE 3. LISTING OF PREVIOUS YEAR HANDICAP CENSUS

nosticians in New York State. Maintenance of data accuracy would be a very real problem if the state received data directly from so many sources. Accuracy could be maintained much more easily if the data were processed on the regional level. At the present time, however, it does not appear that this data could be processed at the regional level since only partially operational. It is estimated that it would take another six to eight years for all regional centers to be fully operational.

Intrastate Transfers. In addition to children newly diagnosed as handicapped each year by diagnostic clinics or schools, it is possible that school programs will acquire children who have been diagnosed or identified as handicapped previously, in other school districts or other parts of the state. The incidence picture for the state could be distorted if such children are reported by the receiving district as newly diagnosed. They should be reported separately, as intrastate transfers.

Because no mechanism exists to monitor intrastate transfers, one would have to be developed by the State Information Center on Education and the Division for Handicapped Children. This could be accomplished by modifying Form HC-1 (Figure 2) to enable respondents to indicate which children reported that year had transferred into their program from another special education program in the state. Intrastate transfers could then be tabulated fairly simply from the census cards when received. Again, New York City, Rochester, and Buffalo do not participate in the handicapped child census and their intrastate transfers would have to be estimated from the data of those districts that do participate.

Attritions. In order to obtain data on the number of children who attrited from the identified handicapped population, the Information Center on Education has requested that school districts indicate those children that are no longer enrolled in their public school special education programs because they: (a) improved in their handicapping condition and returned to regular education programs, (b) left the state, (c) died, or (d) became too old to be classified as children. This procedure should be formalized by developing a coding scheme used in the annual updating of the handicapped child census.

The same procedure should be followed in obtaining attrition data of handicapped child waiting lists. By using the computer listing of all children reported the previous year, the school district superintendents should indicate which children dropped from the waiting list because they (a) left the state, (b) died, or (c) became too old to be classified as school-aged.

General Population Projections

The projected number of children in the general population, by single year of age, for each year for which special education manpower projections are to be made, presents little problem in data collection since Title VI project applications require this information, at least for the coming fiscal year. Projections required by the model are also available for future years and, applying incidence rates, once established, to the number of new entrants, should present no difficulty.

Data Used to Simulate Special Education

Trends in the proportionate number of children served in each educational program, by handicapping condition and single year of age, are available for public school special eduation programs and state supported private schools.

The personnel/pupil contact ratios for the types of public school personnel in direct contact with the children in each target group in special education programs, is another data item that is readily available from the Division for Handicapped Children. These ratios are contained in a document entitled "Amendment to the Regulations of the Commissioner of Education—pursuant to Section 207 of the Education Law."

For state residential treatment centers, the recommended personnel/pupil contact ratios are determined by the superintendents of the individual institutions. In most instances, the number of children in each class is determined on an individual basis for each teacher. The actual ratios, therefore, may vary from the recommended ratios.

Employment by Personnel Types

Complete data on professional special educators employed in the New York public school system is available through the Basic Educational Data System (BEDS) of the Information Center on Education. Many of the data elements required by the proposed Manpower Requirements Projection Model are already available in an annual publication entitled, "Professional Personnel Report." (See Figure 4 for a sample BEDS form.)

V. PROCESSING POTENTIAL

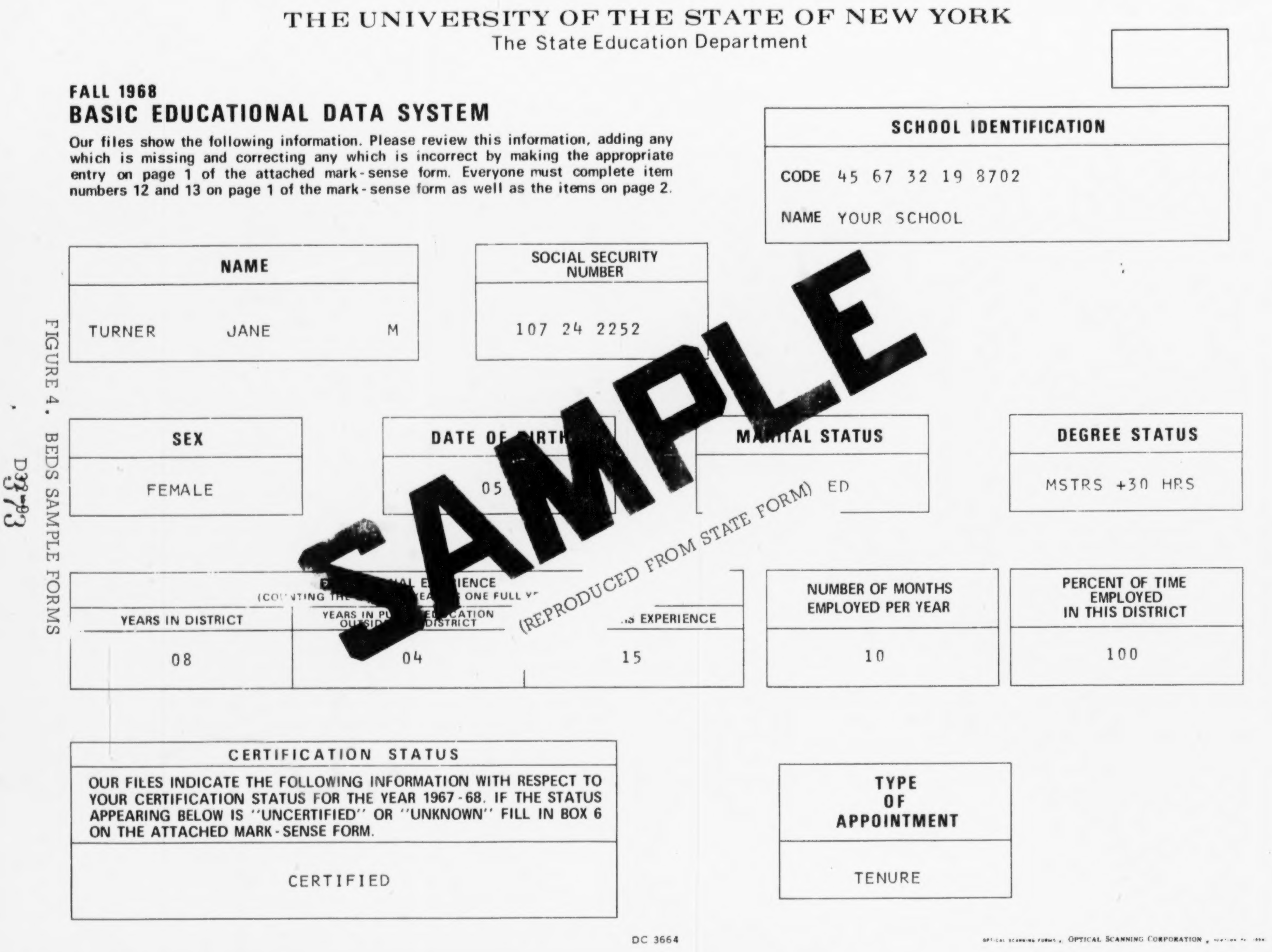
Hardware and Software

Through the Division of Electronic Data Processing, the Division for Handicapped Children has adequate hardware and software to accommodate the proposed effort. The Division of Electronic Data Processing is having a CDC 3300 computer installed, under a master operating or multi-programming system, which will be more than sufficient to run the model.

The Director of the Information Center and his staff of 13 professionals, would have the primary responsibility for operating the model. This decision has been reached by the Director of the Division for Handicapped Children and the Director of the Information Center.

VI. ADDITIONAL FACTORS

The Director of the Division for Handicapped Children and the Director of the Information Center on Education are very interested in the proposed model and expressed the desire to see the proposed Manpower Requirements Projection



THE UNIVERSITY OF THE STATE OF NEW YORK
The State Education Department

FALL 1968
BASIC EDUCATIONAL DATA SYSTEM

Our files show the following information. Please review this information, adding any which is missing and correcting any which is incorrect by making the appropriate entry on page 1 of the attached mark-sense form. Everyone must complete item numbers 12 and 13 on page 1 of the mark-sense form as well as the items on page 2.

SCHOOL IDENTIFICATION
CODE 45 67 32 19 8702
NAME YOUR SCHOOL

NAME
TURNER JANE M

SOCIAL SECURITY NUMBER
107 24 2252

SAMPLE
(REPRODUCED FROM STATE FORM)

SEX
FEMALE

DATE OF BIRTH
05

MARITAL STATUS
ED

DEGREE STATUS
MSTRS +30 HRS

PROFESSIONAL EXPERIENCE
(COUNTING THE [illegible] YEAR AS ONE FULL YEAR)

YEARS IN DISTRICT	YEARS IN PUBLIC EDUCATION OUTSIDE DISTRICT	[illegible] EXPERIENCE
08	04	15

NUMBER OF MONTHS EMPLOYED PER YEAR
10

PERCENT OF TIME EMPLOYED IN THIS DISTRICT
100

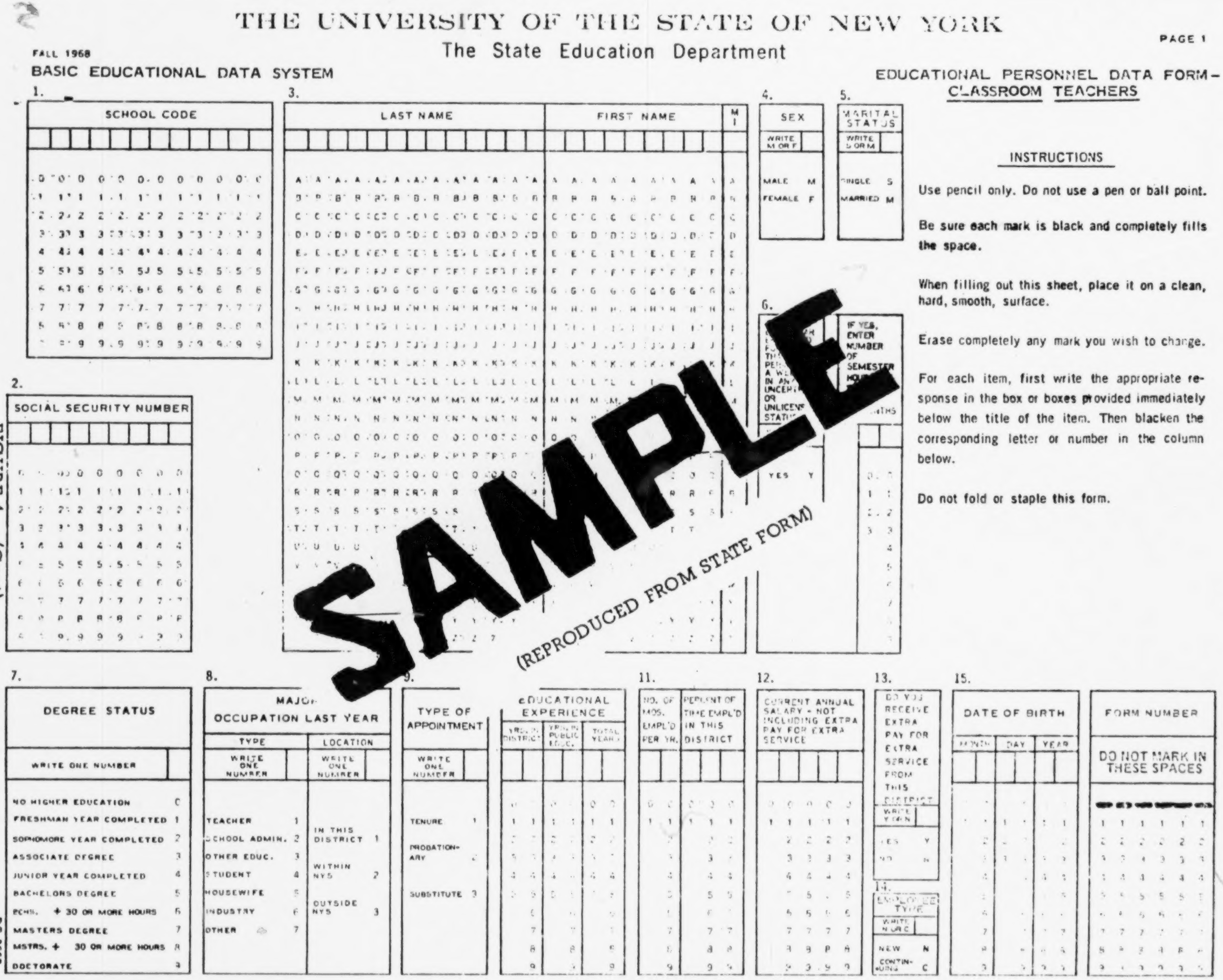
CERTIFICATION STATUS
OUR FILES INDICATE THE FOLLOWING INFORMATION WITH RESPECT TO YOUR CERTIFICATION STATUS FOR THE YEAR 1967-68. IF THE STATUS APPEARING BELOW IS "UNCERTIFIED" OR "UNKNOWN" FILL IN BOX 6 ON THE ATTACHED MARK-SENSE FORM.
CERTIFIED

TYPE OF APPOINTMENT
TENURE

DC 3664

OPTICAL SCANNING CORPORATION

FIGURE 4. BEDS SAMPLE FORMS



THE UNIVERSITY OF THE STATE OF NEW YORK

The State Education Department

PAGE 1

FALL 1968

BASIC EDUCATIONAL DATA SYSTEM

EDUCATIONAL PERSONNEL DATA FORM–CLASSROOM TEACHERS

1. SCHOOL CODE

2. SOCIAL SECURITY NUMBER

3. LAST NAME | FIRST NAME | MI

4. SEX

WRITE M OR F

MALE M

FEMALE F

5. MARITAL STATUS

WRITE S OR M

SINGLE S

MARRIED M

6. … THIS PE… A WE… IN AN… UNCERT… OR UNLICENS… STATU…

YES Y

IF YES, ENTER NUMBER OF SEMESTER HOU… …NTHS

INSTRUCTIONS

Use pencil only. Do not use a pen or ball point.

Be sure each mark is black and completely fills the space.

When filling out this sheet, place it on a clean, hard, smooth, surface.

Erase completely any mark you wish to change.

For each item, first write the appropriate response in the box or boxes provided immediately below the title of the item. Then blacken the corresponding letter or number in the column below.

Do not fold or staple this form.

SAMPLE

(REPRODUCED FROM STATE FORM)

7. DEGREE STATUS

WRITE ONE NUMBER

NO HIGHER EDUCATION	0
FRESHMAN YEAR COMPLETED	1
SOPHOMORE YEAR COMPLETED	2
ASSOCIATE DEGREE	3
JUNIOR YEAR COMPLETED	4
BACHELORS DEGREE	5
BCHS. + 30 OR MORE HOURS	6
MASTERS DEGREE	7
MSTRS. + 30 OR MORE HOURS	8
DOCTORATE	9

8. MAJOR OCCUPATION LAST YEAR

TYPE — WRITE ONE NUMBER

TEACHER	1
SCHOOL ADMIN.	2
OTHER EDUC.	3
STUDENT	4
HOUSEWIFE	5
INDUSTRY	6
OTHER	7

LOCATION — WRITE ONE NUMBER

IN THIS DISTRICT	1
WITHIN NYS	2
OUTSIDE NYS	3

9. TYPE OF APPOINTMENT

WRITE ONE NUMBER

TENURE	1
PROBATIONARY	2
SUBSTITUTE	3

EDUCATIONAL EXPERIENCE

YRS. IN DISTRICT | YRS. IN PUBLIC EDUC. | TOTAL YEARS

11. NO. OF MOS. EMPL'D PER YR. | PERCENT OF TIME EMPL'D IN THIS DISTRICT

12. CURRENT ANNUAL SALARY - NOT INCLUDING EXTRA PAY FOR EXTRA SERVICE

13. DO YOU RECEIVE EXTRA PAY FOR EXTRA SERVICE FROM THIS DISTRICT

WRITE Y OR N

YES Y

NO N

14. EMPLOYEE TYPE

WRITE N OR C

NEW N

CONTINUING C

15. DATE OF BIRTH

MONTH | DAY | YEAR

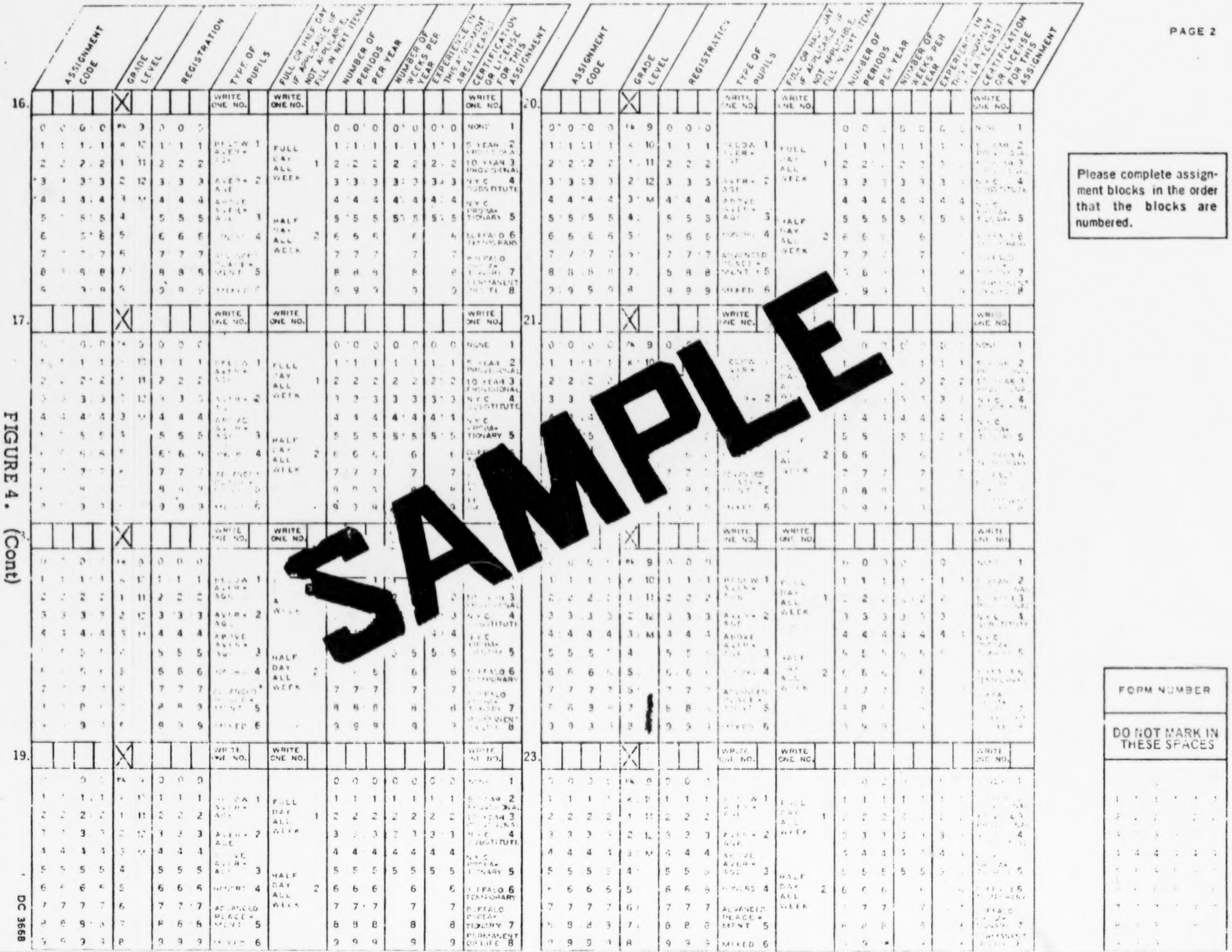
FORM NUMBER

DO NOT MARK IN THESE SPACES

DC 3667

FIGURE 4. (Cont)

D32-10



Please complete assignment blocks in the order that the blocks are numbered.

	ASSIGNMENT CODE	GRADE LEVEL	REGISTRATION	TYPE OF PUPILS	FULL OR HALF DAY IF APPLICABLE (IF NOT APPLICABLE, FILL IN NEXT ITEM)	NUMBER OF PERIODS PER YEAR	NUMBER OF WEEKS PER YEAR	EXPERIENCE IN THIS ASSIGNMENT AREA (YEARS)	CERTIFICATION OR LICENSE FOR THIS ASSIGNMENT
16.	☐ ☐ ☐ ☐	☒ ☐	☐ ☐ ☐	WRITE ONE NO. ☐	WRITE ONE NO. ☐	☐ ☐ ☐	☐ ☐	☐ ☐	WRITE ONE NO. ☐
	0 0 0 0	PK 9	0 0 0			0 0 0	0 0	0 0	NONE 1
	1 1 1 1	K 10	1 1 1	BELOW AVERAGE 1	FULL DAY ALL WEEK 1	1 1 1	1 1	1 1	5 YEAR PROVISIONAL 2
	2 2 2 2	1 11	2 2 2			2 2 2	2 2	2 2	10 YEAR PROVISIONAL 3
	3 3 3 3	2 12	3 3 3	AVERAGE 2		3 3 3	3 3	3 3	N.Y.C. SUBSTITUTE 4
	4 4 4 4	3 M	4 4 4			4 4 4	4 4	4 4	
	5 5 5 5	4	5 5 5	ABOVE AVERAGE 3	HALF DAY ALL WEEK 2	5 5 5	5 5	5 5	N.Y.C. PROBATIONARY 5
	6 6 6 6	5	6 6 6	HONORS 4		6 6 6	6	6	BUFFALO TEMPORARY 6
	7 7 7 7	6	7 7 7			7 7 7	7	7	
	8 8 8 8	7	8 8 8	ADVANCED PLACEMENT 5		8 8 8	8	8	BUFFALO PROBATIONARY 7
	9 9 9 9	8	9 9 9	MIXED 6		9 9 9	9	9	PERMANENT OR LIFE 8
17.	☐ ☐ ☐ ☐	☒ ☐	☐ ☐ ☐	WRITE ONE NO. ☐	WRITE ONE NO. ☐	☐ ☐ ☐	☐ ☐	☐ ☐	WRITE ONE NO. ☐
	0 0 0 0	PK 9	0 0 0			0 0 0	0 0	0 0	NONE 1
	1 1 1 1	K 10	1 1 1	BELOW AVERAGE 1	FULL DAY ALL WEEK 1	1 1 1	1 1	1 1	5 YEAR PROVISIONAL 2
	2 2 2 2	1 11	2 2 2			2 2 2	2 2	2 2	10 YEAR PROVISIONAL 3
	3 3 3 3	2 12	3 3 3	AVERAGE 2		3 3 3	3 3	3 3	N.Y.C. SUBSTITUTE 4
	4 4 4 4	3 M	4 4 4			4 4 4	4 4	4 4	
	5 5 5 5	4	5 5 5	ABOVE AVERAGE 3	HALF DAY ALL WEEK 2	5 5 5	5 5	5 5	N.Y.C. PROBATIONARY 5
	6 6 6 6	5	6 6 6	HONORS 4		6 6 6	6	6	BUFFALO TEMPORARY 6
	7 7 7 7	6	7 7 7			7 7 7	7	7	
	8 8 8 8	7	8 8 8	ADVANCED PLACEMENT 5		8 8 8	8	8	BUFFALO PROBATIONARY 7
	9 9 9 9	8	9 9 9	MIXED 6		9 9 9	9	9	PERMANENT OR LIFE 8
	☐ ☐ ☐ ☐	☒ ☐	☐ ☐ ☐	WRITE ONE NO. ☐	WRITE ONE NO. ☐	☐ ☐ ☐	☐ ☐	☐ ☐	WRITE ONE NO. ☐
	0 0 0 0	PK 9	0 0 0			0 0 0	0 0	0 0	NONE 1
	1 1 1 1	K 10	1 1 1	BELOW AVERAGE 1	FULL DAY ALL WEEK 1	1 1 1	1 1	1 1	5 YEAR PROVISIONAL 2
	2 2 2 2	1 11	2 2 2			2 2 2	2 2	2 2	10 YEAR PROVISIONAL 3
	3 3 3 3	2 12	3 3 3	AVERAGE 2		3 3 3	3 3	3 3	N.Y.C. SUBSTITUTE 4
	4 4 4 4	3 M	4 4 4			4 4 4	4 4	4 4	
	5 5 5 5	4	5 5 5	ABOVE AVERAGE 3	HALF DAY ALL WEEK 2	5 5 5	5 5	5 5	N.Y.C. PROBATIONARY 5
	6 6 6 6	5	6 6 6	HONORS 4		6 6 6	6	6	BUFFALO TEMPORARY 6
	7 7 7 7	6	7 7 7			7 7 7	7	7	
	8 8 8 8	7	8 8 8	ADVANCED PLACEMENT 5		8 8 8	8	8	BUFFALO PROBATIONARY 7
	9 9 9 9	8	9 9 9	MIXED 6		9 9 9	9	9	PERMANENT OR LIFE 8
19.	☐ ☐ ☐ ☐	☒ ☐	☐ ☐ ☐	WRITE ONE NO. ☐	WRITE ONE NO. ☐	☐ ☐ ☐	☐ ☐	☐ ☐	WRITE ONE NO. ☐
	0 0 0 0	PK 9	0 0 0			0 0 0	0 0	0 0	NONE 1
	1 1 1 1	K 10	1 1 1	BELOW AVERAGE 1	FULL DAY ALL WEEK 1	1 1 1	1 1	1 1	5 YEAR PROVISIONAL 2
	2 2 2 2	1 11	2 2 2			2 2 2	2 2	2 2	10 YEAR PROVISIONAL 3
	3 3 3 3	2 12	3 3 3	AVERAGE 2		3 3 3	3 3	3 3	N.Y.C. SUBSTITUTE 4
	4 4 4 4	3 M	4 4 4			4 4 4	4 4	4 4	
	5 5 5 5	4	5 5 5	ABOVE AVERAGE 3	HALF DAY ALL WEEK 2	5 5 5	5 5	5 5	N.Y.C. PROBATIONARY 5
	6 6 6 6	5	6 6 6	HONORS 4		6 6 6	6	6	BUFFALO TEMPORARY 6
	7 7 7 7	6	7 7 7			7 7 7	7	7	
	8 8 8 8	7	8 8 8	ADVANCED PLACEMENT 5		8 8 8	8	8	BUFFALO PROBATIONARY 7
	9 9 9 9	8	9 9 9	MIXED 6		9 9 9	9	9	PERMANENT OR LIFE 8

	ASSIGNMENT CODE	GRADE LEVEL	REGISTRATION	TYPE OF PUPILS	FULL OR HALF DAY IF APPLICABLE (IF NOT APPLICABLE, FILL IN NEXT ITEM)	NUMBER OF PERIODS PER YEAR	NUMBER OF WEEKS PER YEAR	EXPERIENCE IN THIS ASSIGNMENT AREA (YEARS)	CERTIFICATION OR LICENSE FOR THIS ASSIGNMENT
20.	☐ ☐ ☐ ☐	☒ ☐	☐ ☐ ☐	WRITE ONE NO. ☐	WRITE ONE NO. ☐	☐ ☐ ☐	☐ ☐	☐ ☐	WRITE ONE NO. ☐
	0 0 0 0	PK 9	0 0 0			0 0 0	0 0	0 0	NONE 1
	1 1 1 1	K 10	1 1 1	BELOW AVERAGE 1	FULL DAY ALL WEEK 1	1 1 1	1 1	1 1	5 YEAR PROVISIONAL 2
	2 2 2 2	1 11	2 2 2			2 2 2	2 2	2 2	10 YEAR PROVISIONAL 3
	3 3 3 3	2 12	3 3 3	AVERAGE 2		3 3 3	3 3	3 3	N.Y.C. SUBSTITUTE 4
	4 4 4 4	3 M	4 4 4			4 4 4	4 4	4 4	
	5 5 5 5	4	5 5 5	ABOVE AVERAGE 3	HALF DAY ALL WEEK 2	5 5 5	5 5	5 5	N.Y.C. PROBATIONARY 5
	6 6 6 6	5	6 6 6	HONORS 4		6 6 6	6	6	BUFFALO TEMPORARY 6
	7 7 7 7	6	7 7 7			7 7 7	7	7	
	8 8 8 8	7	8 8 8	ADVANCED PLACEMENT 5		8 8 8	8	8	BUFFALO PROBATIONARY 7
	9 9 9 9	8	9 9 9	MIXED 6		9 9 9	9	9	PERMANENT OR LIFE 8
21.	☐ ☐ ☐ ☐	☒ ☐	☐ ☐ ☐	WRITE ONE NO. ☐	WRITE ONE NO. ☐	☐ ☐ ☐	☐ ☐	☐ ☐	WRITE ONE NO. ☐
	0 0 0 0	PK 9	0 0 0			0 0 0	0 0	0 0	NONE 1
	1 1 1 1	K 10	1 1 1	BELOW AVERAGE 1	FULL DAY ALL WEEK 1	1 1 1	1 1	1 1	5 YEAR PROVISIONAL 2
	2 2 2 2	1 11	2 2 2			2 2 2	2 2	2 2	10 YEAR PROVISIONAL 3
	3 3 3 3	2 12	3 3 3	AVERAGE 2		3 3 3	3 3	3 3	N.Y.C. SUBSTITUTE 4
	4 4 4 4	3 M	4 4 4			4 4 4	4 4	4 4	
	5 5 5 5	4	5 5 5	ABOVE AVERAGE 3	HALF DAY ALL WEEK 2	5 5 5	5 5	5 5	N.Y.C. PROBATIONARY 5
	6 6 6 6	5	6 6 6	HONORS 4		6 6 6	6	6	BUFFALO TEMPORARY 6
	7 7 7 7	6	7 7 7			7 7 7	7	7	
	8 8 8 8	7	8 8 8	ADVANCED PLACEMENT 5		8 8 8	8	8	BUFFALO PROBATIONARY 7
	9 9 9 9	8	9 9 9	MIXED 6		9 9 9	9	9	PERMANENT OR LIFE 8
	☐ ☐ ☐ ☐	☒ ☐	☐ ☐ ☐	WRITE ONE NO. ☐	WRITE ONE NO. ☐	☐ ☐ ☐	☐ ☐	☐ ☐	WRITE ONE NO. ☐
	0 0 0 0	PK 9	0 0 0			0 0 0	0 0	0 0	NONE 1
	1 1 1 1	K 10	1 1 1	BELOW AVERAGE 1	FULL DAY ALL WEEK 1	1 1 1	1 1	1 1	5 YEAR PROVISIONAL 2
	2 2 2 2	1 11	2 2 2			2 2 2	2 2	2 2	10 YEAR PROVISIONAL 3
	3 3 3 3	2 12	3 3 3	AVERAGE 2		3 3 3	3 3	3 3	N.Y.C. SUBSTITUTE 4
	4 4 4 4	3 M	4 4 4			4 4 4	4 4	4 4	
	5 5 5 5	4	5 5 5	ABOVE AVERAGE 3	HALF DAY ALL WEEK 2	5 5 5	5 5	5 5	N.Y.C. PROBATIONARY 5
	6 6 6 6	5	6 6 6	HONORS 4		6 6 6	6	6	BUFFALO TEMPORARY 6
	7 7 7 7	6	7 7 7			7 7 7	7	7	
	8 8 8 8	7	8 8 8	ADVANCED PLACEMENT 5		8 8 8	8	8	BUFFALO PROBATIONARY 7
	9 9 9 9	8	9 9 9	MIXED 6		9 9 9	9	9	PERMANENT OR LIFE 8
23.	☐ ☐ ☐ ☐	☒ ☐	☐ ☐ ☐	WRITE ONE NO. ☐	WRITE ONE NO. ☐	☐ ☐ ☐	☐ ☐	☐ ☐	WRITE ONE NO. ☐
	0 0 0 0	PK 9	0 0 0			0 0 0	0 0	0 0	NONE 1
	1 1 1 1	K 10	1 1 1	BELOW AVERAGE 1	FULL DAY ALL WEEK 1	1 1 1	1 1	1 1	5 YEAR PROVISIONAL 2
	2 2 2 2	1 11	2 2 2			2 2 2	2 2	2 2	10 YEAR PROVISIONAL 3
	3 3 3 3	2 12	3 3 3	AVERAGE 2		3 3 3	3 3	3 3	N.Y.C. SUBSTITUTE 4
	4 4 4 4	3 M	4 4 4			4 4 4	4 4	4 4	
	5 5 5 5	4	5 5 5	ABOVE AVERAGE 3	HALF DAY ALL WEEK 2	5 5 5	5 5	5 5	N.Y.C. PROBATIONARY 5
	6 6 6 6	5	6 6 6	HONORS 4		6 6 6	6	6	BUFFALO TEMPORARY 6
	7 7 7 7	6	7 7 7			7 7 7	7	7	
	8 8 8 8	7	8 8 8	ADVANCED PLACEMENT 5		8 8 8	8	8	BUFFALO PROBATIONARY 7
	9 9 9 9	8	9 9 9	MIXED 6		9 9 9	9	9	PERMANENT OR LIFE 8

FORM NUMBER

DO NOT MARK IN THESE SPACES

SAMPLE

DC 3668

FIGURE 4. (Cont)

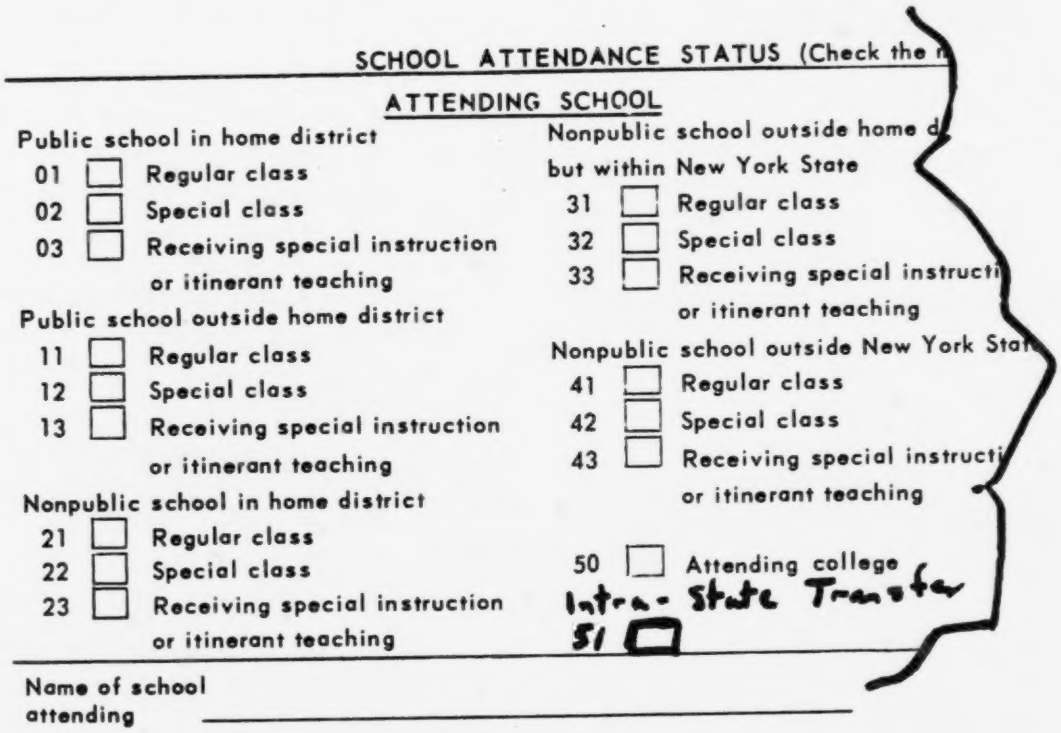
Model implemented in New York. At the present time, however, the Division for Handicapped Children has vacancies for approximately 50 percent of its authorized staff positions because of relatively low salaries. Therefore, a staff analyst is not available for testing manpower hypotheses. Until the Division is able to recruit enough people to be at full strength, it is very doubtful that New York would be in a position to develop and maintain the proposed effort. Funding for the model, then, would probably have to come from another source.

The Associate Commissioner of the Division of Mental Retardation of the State Department of Mental Hygiene was also interested in the model, as it applied to the special education programs of the schools for the mentally retarded, the residential treatment centers for the emotionally disturbed, the clinics for the mentally retarded, and the day training centers for the mentally retarded. The Associate Commissioner felt, however, that it would be preferable for the Division of Mental Retardation to develop its own predictive capabilities rather than be tied to that being developed by the Department of Education. During the ORI visit, therefore, an examination of existing reporting forms of the Department of Mental Hygiene was conducted. Very little data were found that could serve as input to the proposed model. The Office of Clinical and Information Systems has the responsibility for redesigning the reporting forms of the Department of Mental Hygiene and several people of this Office indicated that they would be willing to modify the existing forms in order to accommodate the model.

The Division of Mental Retardation would probably have to contact the Information Center on Education to receive the necessary modeling documentation. Through its Office of Clinical and Information Systems, the Department of Mental Hygiene has adequate hardware and software capability to support the model.

The State of New York is also in the process of developing twelve regional data processing centers for education to interface with the State Department of Education's Information Center and the local Boards of Education. The system design is so structured that each regional center has responsibility for developing a particular subsystem or group of subsystems. Once a financial subsystem, for example, is developed by one regional center, it is incorporated in the data processing systems of the other regional information centers. In future years, it may be possible to implement the model on a regional basis, i.e., project regional manpower requirements in special education.

It should be pointed out, however, that the main purpose of the Manpower Requirements Projection Model is to predict the total special education manpower needs of the state. The state policy on training additional special education personnel could be modified according to the information supplied by the model. Predicting regional or department needs for special educators is necessary for operational efficiency but cannot be used as a basis for planning new training programs for such personnel. Regional or departmental projections would have to be summarized to give the state an overall picture of its future special education requirements.



SCHOOL ATTENDANCE STATUS (Check the

ATTENDING SCHOOL

Public school in home district
01 ☐ Regular class
02 ☐ Special class
03 ☐ Receiving special instruction or itinerant teaching

Public school outside home district
11 ☐ Regular class
12 ☐ Special class
13 ☐ Receiving special instruction or itinerant teaching

Nonpublic school in home district
21 ☐ Regular class
22 ☐ Special class
23 ☐ Receiving special instruction or itinerant teaching

Nonpublic school outside home d
but within New York State
31 ☐ Regular class
32 ☐ Special class
33 ☐ Receiving special instructi
or itinerant teaching

Nonpublic school outside New York Sta
41 ☐ Regular class
42 ☐ Special class
43 ☐ Receiving special instructi
or itinerant teaching

50 ☐ Attending college

Intra- State Transfer
51 ☐

Name of school attending ______________________

(REPRODUCED FROM STATE FORM)

FIGURE 5. MODIFYING ANNUAL CENSUS REPORT TO OBTAIN INTRA-STATE TRANSFER DATA

VII. RECOMMENDATIONS

As a result of the interviews with those individuals responsible for special education programs in New York, several actions necessary for implementing the Manpower Requirements Projection Model can be recommended. First, the state agencies accountable for special education programs must close the gap between the data now available and the data required by the model.

In order to close the data gap, the Division for Handicapped Children and the Information Center on Education must re-examine the annual census of handicapped children mechanism. As can be seen from Figure 2, the current handicap grouping for the annual census is not comprehensive. A possible handicap grouping is presented below.

Handicap Group	Includes Children With:
1. Blind	Vision so defective that sight cannot be a primary avenue of learning nor print the primary mode of reading. Not included are legally blind children able to read large type.
2. Partially sighted	Limited but sufficient residual vision for sight to be a primary avenue of learning and print the primary mode of reading with the aid of special facilities, materials, and/or media. Included are legally blind children able to read large type.
3. Deaf	Defective hearing, which, even with amplification, is not sufficient for natural development and interpretation of language.
4. Hard-of-hearing	An educationally significant hearing loss with sufficient residual hearing to develop and interpret language with or without a hearing aid.
5. Emotionally disturbed	Severe and frequent maladaptive behavior seriously reducing attention and learning.
6. Mentally retarded	Inherent learning capacity (cognitive limits) so restricted that the educational demands of the regular classroom cannot be met. Children are grouped by achievement potential:

	a. Educable. Practical skills and functional reading and arithmetic abilities at a third to sixth grade level can be achieved.
	b. Trainable. Simple communication, elementary health and safety habits, and simple manual skills, but no progress in functional reading or arithmetic, can be achieved.
7. Speech handicap	Speech which deviates from that spoken by others in any given setting to the extent that it calls attention to itself and interferes with communication. This may include deviations in articulation of speech sounds, in voice production, and/or in rhythmn and rate or oral expression.
8. Special learning disabilities	A severe disorder in one or more of the processes involved in understanding or using spoken or written language. Excluded are children with learning problems resulting from visual, hearing, or motor handicaps; mental retardation; emotional disturbance; or environmental disadvantage.
9. Nonsensory physical disabilities	Neuromuscular disabilities resulting from brain damage, characterized by disturbances of the voluntary motor functions particularly affecting the extremities; children whose weakened physical condition reduces activity and efficiency or requires special health precautions in school; and orthopedically handicapped children.

The handicap categories appearing on the "Annual Census Report" should be modified along the lines presented above.

The "Annual Census Report" should also be modified to obtain information on handicapped children transferring from one public school special education program within the state to another. (See Figure 5.)

A coding scheme should be provided to the school district superintendents to allow them to indicate which pupils attrited from special education programs and which children attrited from special education waiting lists. In light of the coding scheme currently being used for the annual census, the following additions should be made.

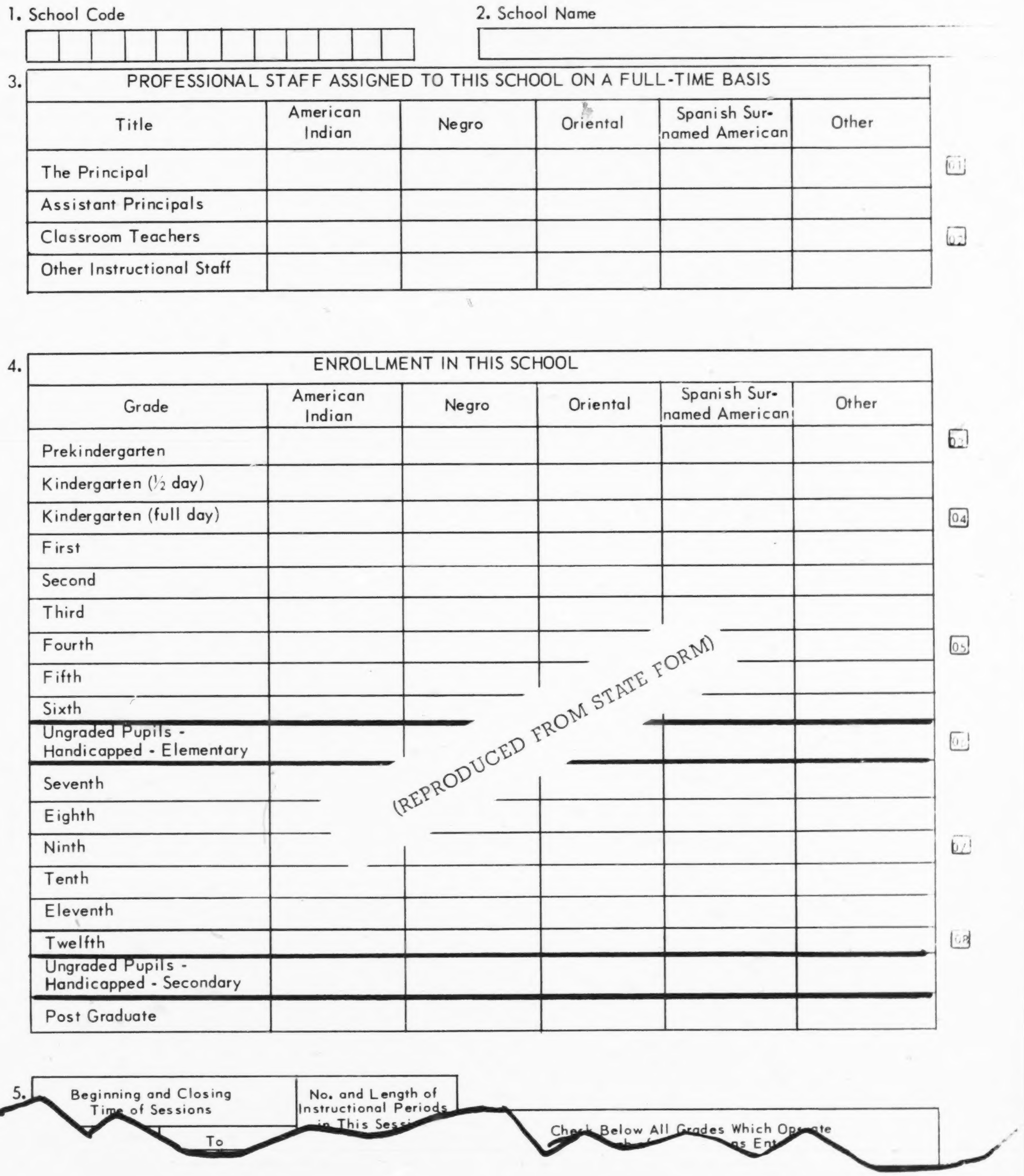
93	Handicapped child who attrited from special education program because of placement in regular education program
94	Handicapped child who attrited from special education program because of death
95	Handicapped child who attrited from special education program because of becoming too old
96	Handicapped child who attrited from special education program because of leaving the state
97	Handicapped child who attrited from special education waiting list because of death
98	Handicapped child who attrited from special education waiting list because of becoming too old
99	Handicapped child who attrited from special education waiting list because of leaving the state.

The last recommendation concerning the annual census concerns data validation. The Information Center on Education must continue to spot check the data reported on the annual census in order to improve its quality. In some school districts, for example, duplication has occurred in the past.

Because the annual census of handicapped children does not include the large cities of New York State, some provision must be made for obtaining detailed information about the handicapped population of these areas, especially since those cities contain the majority of the handicapped child population of the state.

Enrollment data of special education programs of the large cities could be obtained through BEDS. The present BEDS School Data Form only asks for the total number of handicapped pupils in the elementary grades and the total number in the secondary grades. (See Figure 6.) This form could be modified by adding another matrix, to ask for the number of handicapped children at each grade level within each handicap group. The BEDS Personnel Data Form (Figure 4) could also be modified to ask for the number of handicapped children by specific grade level.

The alternative to using BEDS to capture detailed enrollment data for the large cities, is to use the annual census data of the small and medium sized communities to estimate the enrolled handicapped child population of the large cities. The same procedure could be followed to determine the waiting lists,



1. School Code

2. School Name

3. PROFESSIONAL STAFF ASSIGNED TO THIS SCHOOL ON A FULL-TIME BASIS

Title	American Indian	Negro	Oriental	Spanish Surnamed American	Other	
The Principal						01
Assistant Principals						
Classroom Teachers						02
Other Instructional Staff						

4. ENROLLMENT IN THIS SCHOOL

Grade	American Indian	Negro	Oriental	Spanish Surnamed American	Other	
Prekindergarten						03
Kindergarten (½ day)						
Kindergarten (full day)						04
First						
Second						
Third						
Fourth						05
Fifth						
Sixth						
Ungraded Pupils - Handicapped - Elementary						06
Seventh						
Eighth						
Ninth						07
Tenth						
Eleventh						
Twelfth						08
Ungraded Pupils - Handicapped - Secondary						
Post Graduate						

(REPRODUCED FROM STATE FORM)

5. Beginning and Closing Time of Sessions

To

No. and Length of Instructional Periods in This Sess

Check Below All Grades Which Op

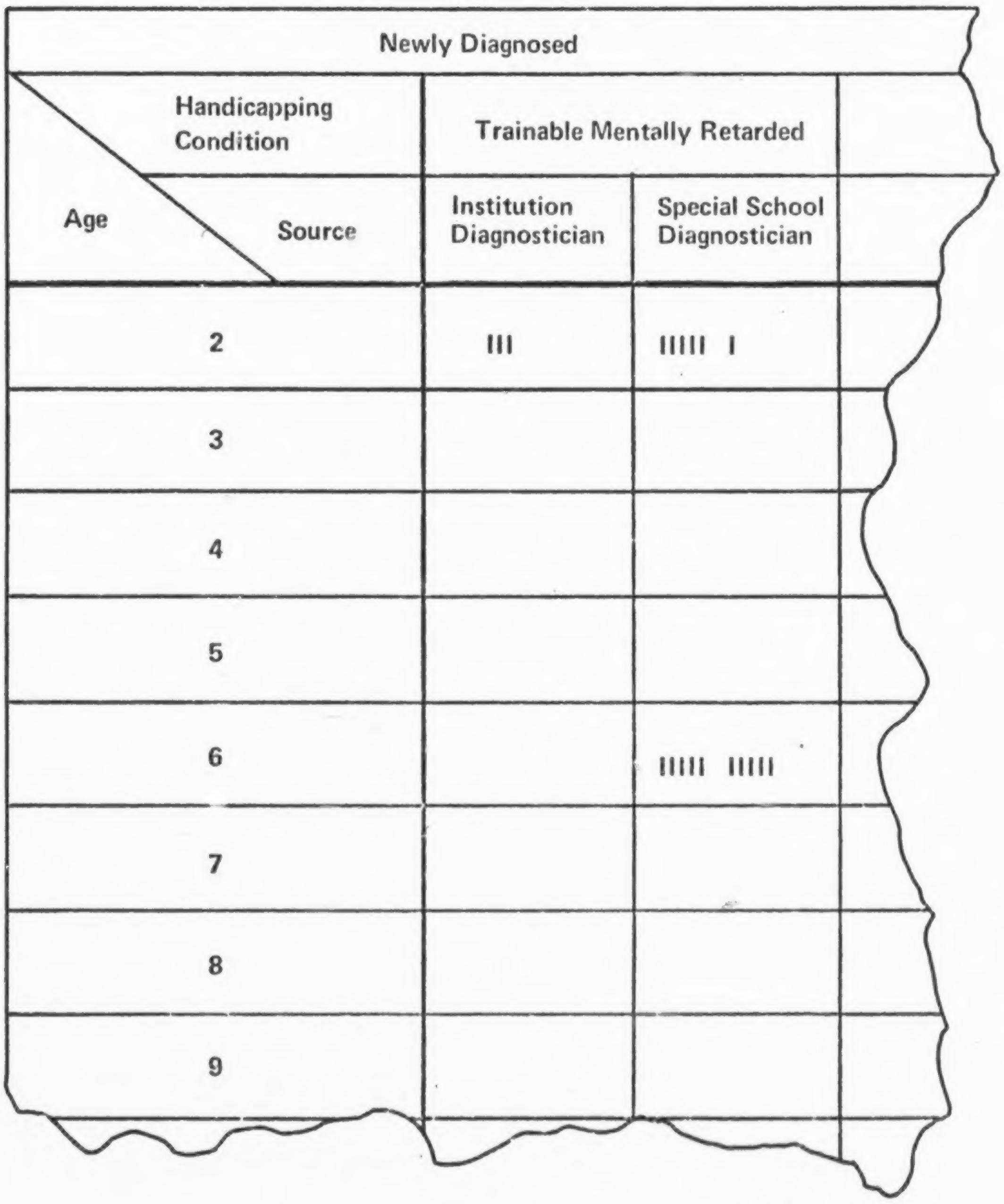
FIGURE 6. PAGE 2 OF BEDS SCHOOL DATA FORM

intrastate transfers, and attritions from the large city special education programs. It is obvious that deriving good estimates of these populations will require careful statistical analysis. The Director of the Information Center on Education suggested that it might be possible for his office to accept the responsibility for such analysis.

The final recommendation concerns obtaining data on newly diagnosed children. It is recommended that the Information Center on Education be asked to gather this data. A reporting form would have to be designed by the Division for Handicapped Children and the Information Center on Education. This form could be sent to all qualified diagnosticians in the state asking them to return the form to the nearest regional center. See Figure 7 for an example of such a form.

VIII. RESOURCE REQUIREMENTS

The Director of the State Information Center has requested that the resources associated with implementing the model and deriving estimates of large city special education enrollees, waiting lists, etc., be estimated in conjunction with his office. Because this procedure would be beyond the scope of the present effort, no manpower requirements estimate has been developed for New York.



Newly Diagnosed			
Handicapping Condition	Trainable Mentally Retarded		
Age / Source	Institution Diagnostician	Special School Diagnostician	
2	III	IIIII I	
3			
4			
5			
6		IIIII IIIII	
7			
8			
9			

FIGURE 7. EXAMPLE OF MATRIX FORM TO COLLECT DIAGNOSTIC DATA ABOUT NEW ENTRANTS TO HANDICAPPED CHILD POPULATION AND EXAMPLE OF HASH-MARK ENTRIES

IX. PERSONS INTERVIEWED

The people interviewed by the ORI (Leasco) representatives, Mr. Jeffrey J. Koshel and Miss Beverly A. Johns, during the week of 24 November 1969 were:

Dr. Anthony Pelone	Director, Division of Handicapped Children
Mr. Raphael Simches	Assistant Director, Division of Handicapped Children
Mr. Charles Becker	Division of Handicapped Children
Dr. John Stiglmeier	Director, Information Center on Education
Mr. George Elmdorf	Associate Systems Analyst, Information Center on Education
Dr. Retick	Associate Commissioner, Division of Mental Retardation, Department of Mental Hygiene
Dr. Abbot Weinstein	Division of Mental Retardation, Department of Mental Hygiene
Mr. McAllister	Assistant Commissioner, Division of Mental Retardation, Department of Mental Hygiene
Mr. Gene Scott	Associate Biostatistician, Mental Retardation, Office of Clinical and Information Systems, Department of Mental Hygiene
Mrs. Sharlett Morris	Chief Statistician, Local Services, Office of Clinical and Information Systems, Department of Mental Hygiene

TABLE 1

SUMMARY OF DATA DEVELOPMENT STATUS

NEW YORK

			PUBLIC SCHOOLS			SPECIAL SCHOOLS			STATE-AIDED PRIVATE SCHOOLS		
DATA ELEMENTS			**CURRENT STATUS**	**METHOD OF DEVELOPMENT**	**SOURCE OF DATA**	**CURRENT STATUS**	**METHOD OF DEVELOPMENT**	**SOURCE OF DATA**	**CURRENT STATUS**	**METHOD OF DEVELOPMENT**	**SOURCE OF DATA**
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	**ENROLLED**	**AGE**	Currently available for all school districts except large cities	Estimate or use BEDS as data collection instrument	Information Center on Education or Local School District Superintendents	Currently available at state level	Not applicable	Superintendent of Schools	Currently available at state level	Not applicable	Superintendents of Schools
		HANDICAPPING CONDITION									
		EDUCATION PROGRAM									
	ON WAITING LIST	**AGE**	Currently available for all school districts except large cities	Estimate or use BEDS as data collection instrument	Information Center on Education or Local School District Superintendents	Currently available at state level	Not applicable	Superintendent of Schools	Currently available at state level	Not applicable	Superintendents of Schools
		HANDICAPPING CONDITION									
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	**NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION**	**AGE**	Not available	Regional Data Processing Centers	Qualified Diagnisticians (Private and Public)	Not available	Regional Data Processing Centers	School Diagnosticians	Not available	Regional Data Processing Centers	School Diagnosticians
		HANDICAPPING CONDITION									
	INTRA-STATE TRANSFERS	**AGE**	Not available	Modification of Annual Census Report	School District Superintendents	Not available	Modification of Annual Census Report	School Superintendents	Not available	Modification of Annual Census Reports	School Superintendents
		HANDICAPPING CONDITION									
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	**AGE**	Not available	Modification of Annual Census Report	School District Superintendents	Not available	Modification of Annual Census Report	School Superintendents	Not available	Modification of Annual Census Reports	School Superintendents
		HANDICAPPING CONDITION									
		REASON									
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Currently available	Not applicable	Information Center on Education						
DATA USED TO SIMULATE SPECIAL EDUCATION	**EDUCATION PROGRAM MIX TRENDS**		Currently available	Not applicable	Division for Handicapped Children						
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	**TARGET GROUP**	Currently available	Not applicable	Division for Handicapped Children	Not currently available at state level	Must be requested by Division for Handicapped Children	School Superintendents	Not available at state level	Must be requested by Division for Handicapped Children	School Superintendents
		EDUCATION PROGRAM									
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Currently available	Not applicable	Division for Handicapped Children	Available	Not applicable	School Superintendents	Available	Must be requested by Division for Handicapped Children	School Superintendents

NORTH CAROLINA STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

NORTH CAROLINA STATE ANALYSIS REPORT

TABLE OF CONTENTS

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of North Carolina, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

The Division of Special Education and the Title I Office of the Department of Mental Health are very eager to implement the proposed model. The Division of Special Education, for instance, indicated that it would redesign all current reporting forms, if necessary, to establish the required data flow. In fact, this may have to be done.

The Data Processing Section of the Comptroller's Office of the Department of Public Instruction appears to be able to provide excellent data processing support for the model. The Statistics Division of the Department of Mental Health could also be of valuable assistance in providing data as input to the model.

Unfortunately, the Division of Special Education does not have sufficient personnel to develop new procedures for data collection. Even with its present minimal information flow, the Division of Special Education loses an estimated one-fourth of its time in data collection, validation, and tabulation.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The responsibility for the programs for exceptional children in North Carolina is illustrated in the informal organizational chart shown in Figure 1. Only those organizations having educational or informational service functions for exceptional children have been shown. Under existing legislation, the North Carolina Division of Special Education has administrative responsibility for public school special education programs in the following areas of exceptionality.

- Educable Mentally Retarded
- Trainable Mentally Retarded
- Speech and Hearing Handicapped
- Emotionally Disturbed
- Hearing Handicapped
- Visually Handicapped
- Special Learning Disabilities
- Crippled.

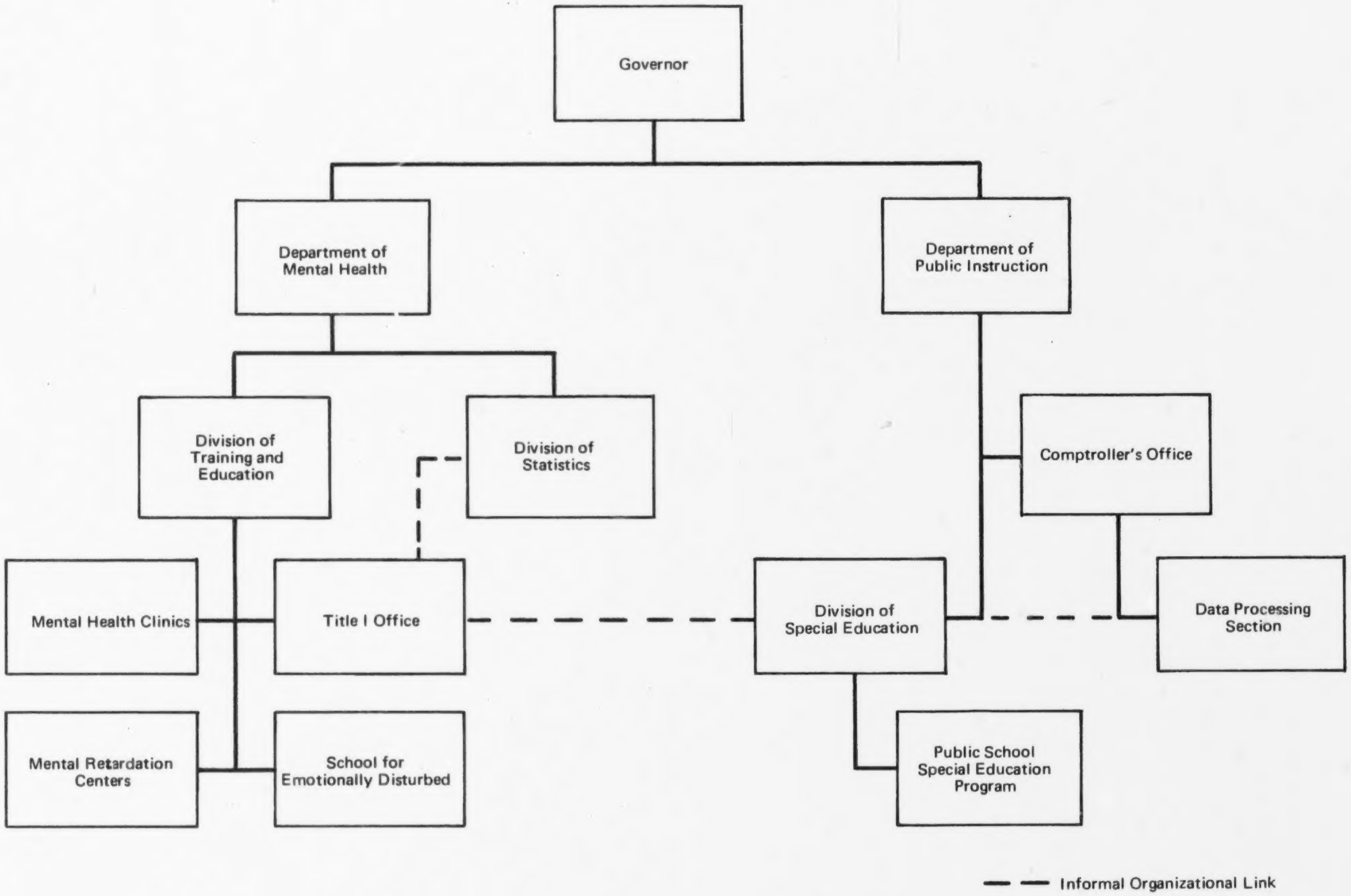

Governor
Department of Mental Health
Department of Public Instruction
Division of Training and Education
Division of Statistics
Comptroller's Office
Mental Health Clinics
Title I Office
Division of Special Education
Data Processing Section
Mental Retardation Centers
School for Emotionally Disturbed
Public School Special Education Program
Informal Organizational Link

FIGURE 1. ORGANIZATION OF ADMINISTRATIVE AND INFORMATIONAL RESPONSIBILITIES IN NORTH CAROLINA'S SPECIAL EDUCATION PROGRAMS

Information on special education programs in mental health clinics, schools for the emotionally disturbed, centers for the mentally retarded, and hospitals is available from the Title I Office of the Division of Training and Education of the Department of Mental Health.

IV. DATA ELEMENT EVALUATION

Some specific data elements are necessary to the use of the projection model. The information which these data elements provide may also be very useful to the Division of Special Education for other operational analyses. These data elements and their potential sources are discussed in the following paragraphs.

Number of Children Identified as Needing Special Education

Enrolled. Every year, the North Carolina school districts that have special education programs are required to file "Special Education Approved—Program Plans" (Form SE69-1) with the State Division of Special Education. These Plans present data on the number of children receiving special education, by their handicapping conditions (for all groups except trainable mentally retarded), type of classroom instruction (i.e., resource room, itinerant, self-contained and block), and level of education (i.e., elementary, junior high, or senior high). Data on the number of handicapped children, by single year of age, is not available from these reporting forms. (See Figure 2)

Speech and hearing therapists are also required to report enrollment data to the Division of Special Education by October of each year. On these annual reports, the number of children, scheduled weekly, by grade, is listed, according to the following breakout: 1,2,3,4,5,6,7-9,10-12. (See Figure 3.)

Each year, the Superintendent of each school district training mentally retarded children must file a list of children eligible for a program for trainable mentally retarded (form TC-2). This form contains the number of children, by single year of age, who are enrolled in this program. The type of classroom instruction(e.g., resource room, block, etc.) is not indicated on the report. (See Figure 4.)

Enrollment data for public school special education programs is, then, incomplete. Single year of age data is missing for all handicapped groups except trainable mentally retarded. The type of classroom structure for trainable mentally retarded children, however, is not contained in existing report formats. Recommendations regarding form modification for capturing these missing data items will be found in Section VII of this report.

The Title I Office of the Division of Mental Health has special education enrollment data from centers for the mentally retarded, mental health clinics, schools for the emotionally disturbed, and mental hospitals. This enrollment data is sufficient for the proposed model, i.e., age and specific handicapping condition are available.

Form SE-69-1
Page 2

FIGURE 2. COMPREHENSIVE PLAN
FOR
SPECIAL EDUCATION PROGRAMS AND SERVICES

____
(School Administrative Unit)

Unit Code No. ______________

TYPE OF POSITION

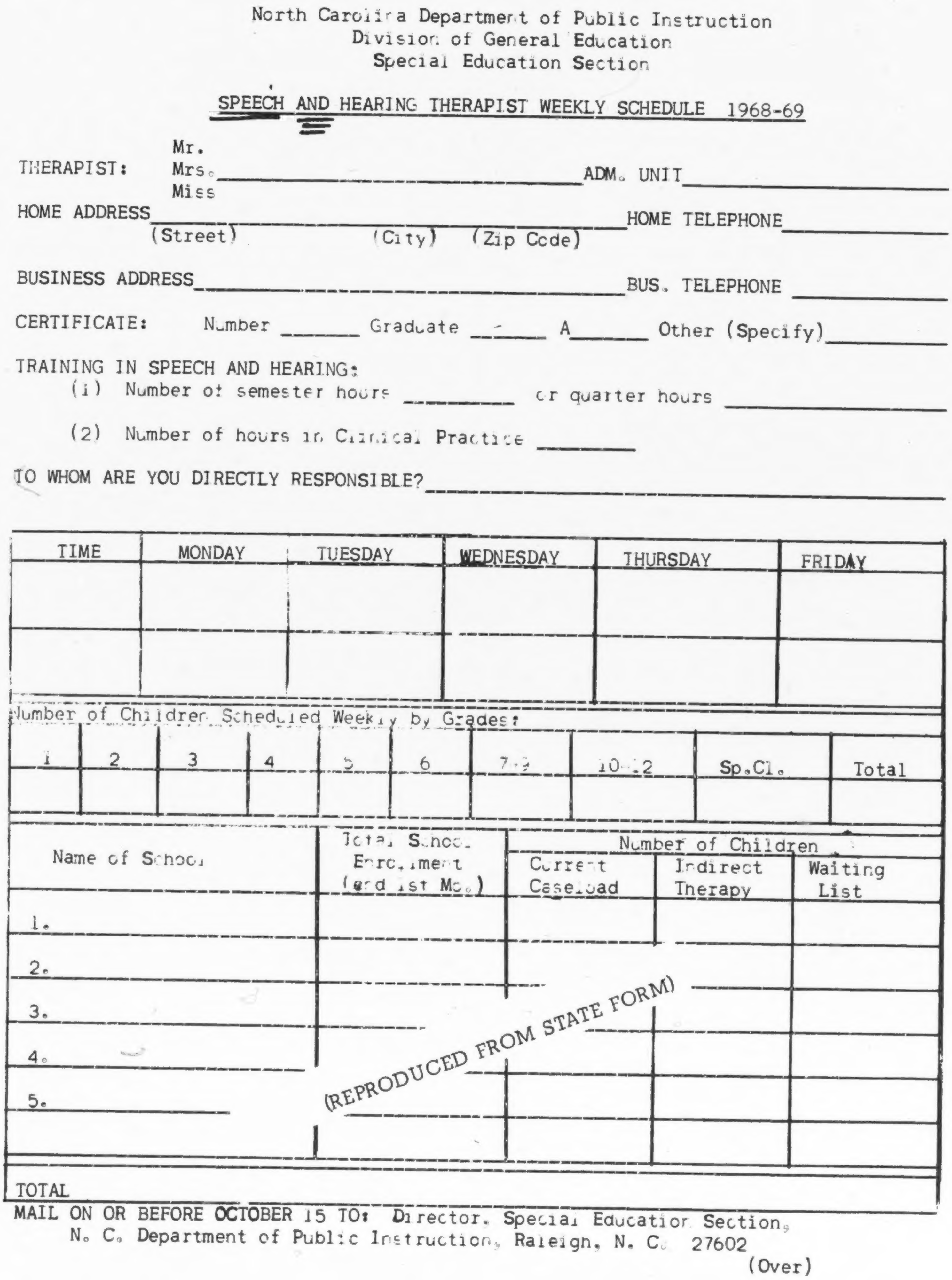
Code
R - Resource
I - Itinerant
S - Self-Contained
B - Block

1			2	3	4	5	6	7	8	9	10	11	12	13	14	15		16		17	
				EMR (Primary)	EMR (Elementary)	EMR (Junior High)	EMR (High School)	Hearing Handicapped	Speech & Hearing Therapy	Crippled	Visually Handicapped	Emotionally Disturbed	Learning Disabilities	Homebound	Hospitalized	Work Study Program		Cooperative Vocational Education Program		Cooperative Vocational Rehabilitation Program	
SCHOOL	Grades Inc.	Est. Enr.														Yes	No	Yes	No	Yes	No
Noro Elementary	1-6	738	A	16	27				20		1		8			X			X		X
			B	1S	1R				1I		1I		½R								
Jones Elementary	1-6	450	A	31	55				16			7	7	1			X		X		X
			B	1S 1R	2S 1R				1I			1S	½R	1I							
Franklin Jr. High	7-9	750	A			20					3		9	1	2	X		X			
			B			1B					1I		1R	½I	½I						
South High	10-12	980	A				34				4			3		X		X		X	
			B				1B 1R				½I			½I							
Meadowfield School	1-12	1350	A		15	25	30				2	6			4	X		X		X	
			B		1S	1B	1B				1I	1S			1I						

Comments:

Jones Elementary has: 1 self-contained position, 1 resource position serving 31 educable mentally retarded Primary; 2 self-contained positions, 1 resource position serving 55 educable mentally retarded elementary; 1 itinerant position serving 16 speech and hearing handicapped; 1 self-contained position serving 7 emotionally disturbed; 1/2 resource position serving 7 learning disabilities; and, 1 itinerant position serving 1 homebound.

Meadowfield School has: 1 self-contained position serving 15 educable mentally retarded elementary; 1 resource position serving 25 educable mentally retarded junior high; 1 block position serving 30 educable mentally retarded high school; 1 itinerant position serving 2 visually handicapped; 1 self-contained position serving 6 emotionally disturbed; and, 1 itinerant position serving 4 hospitalized.



North Carolina Department of Public Instruction
Division of General Education
Special Education Section

SPEECH AND HEARING THERAPIST WEEKLY SCHEDULE 1968-69

THERAPIST: Mr. / Mrs. / Miss ____________ ADM. UNIT ____________

HOME ADDRESS ____________ (Street) (City) (Zip Code) HOME TELEPHONE ____________

BUSINESS ADDRESS ____________ BUS. TELEPHONE ____________

CERTIFICATE: Number ______ Graduate ______ A ______ Other (Specify) ______

TRAINING IN SPEECH AND HEARING:
(1) Number of semester hours ______ or quarter hours ______
(2) Number of hours in Clinical Practice ______

TO WHOM ARE YOU DIRECTLY RESPONSIBLE? ____________

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY

Number of Children Scheduled Weekly by Grades:

1	2	3	4	5	6	7-9	10-12	Sp.Cl.	Total

Name of School	Total School Enrollment (end 1st Mo.)	Number of Children Current Caseload	Indirect Therapy	Waiting List
1.				
2.				
3.				
4.				
5.				
TOTAL				

(REPRODUCED FROM STATE FORM)

MAIL ON OR BEFORE OCTOBER 15 TO: Director, Special Education Section,
N. C. Department of Public Instruction, Raleigh, N. C. 27602

(Over)

FIGURE 3. SPEECH AND HEARING THERAPIST SCHEDULE

Form TC-2
7-17-57—M

NORTH CAROLINA STATE DEPARTMENT OF PUBLIC INSTRUCTION – PROGRAM FOR TRAINABLE MENTALLY RETARDED CHILDREN

List of Children Eligible for Program to be Operated by

-- Board of Education at --
(Location of Training Center)

(REPRODUCED FROM STATE FORM)

NAME OF CHILD (last, first)	BIRTHDATE (Yr. Mo. Da.)	I. Q. Score	NAME OF Intelligence Test	NAME OF Psychologist	DATE TEST Given	NAME OF Physician
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
20.						
21.						
22.						
23.						
24.						
25.						

The above listed children have been found to be eligible in keeping with the criteria and procedures for determining eligibility of children for the program.

-- (Superintendent)

------------------------ (Date)

NOTE: File one copy with Director, Special Education, Department of Public Instruction, in support of application at beginning of year. Subsequently, file one copy when requesting that additional children be approved for admission.

FIGURE 4. LIST OF CHILDREN ELIGIBLE FOR TMR PROGRAM

Waiting List. The only waiting list data available at the state level concerning public school special education programs is data for speech and hearing handicapped children. By May 31 of each year, the public health or school nurse is required to send information pertaining to the Hearing Conservation Program to the Director of Special Education. Items 4,8, and 9 of this form provide an indication of those children needing special education.

As can be seen from Figure 5, the waiting list data that is supplied by the nurses do not show the age of the children listed. In summary, then, the state does not have waiting list data, required by the model, for its public school special education programs. A new data collection instrument will have to be developed to obtain this information if the model is to be implemented in North Carolina. (See Section VII, "RECOMMENDATIONS.")

Waiting list data for the MH clinics, MR centers, schools for the emotionally disturbed, etc., is available through the Title I Office of the Department of Mental Health. Waiting lists are compiled according to the age and specific handicapping condition of the child and, as such, satisfy the model's requirements.

Number of Children Moving Into and Out of the Handicapped Child Population

In order to obtain the number of children who have been newly diagnosed as needing special education, new reporting directives would have to be developed and issued by the Division of Special Education and the Department of Mental Health. (See Section VII.)

In addition to children newly diagnosed as handicapped each year by diagnostic clinics or schools, it is possible that school programs will acquire children who have been diagnosed or identified as handicapped previously in other school districts or other parts of the state. Rather than having these children reported again as newly diagnosed (which could distort the incidence picture in the state), these intrastate transfers should be reported separately. Because no mechansim exists to monitor these transfers into special education programs, one would have to be developed by the Special Education Division. (See Section VII.)

State residential schools, MR centers, MH clinics, etc., could indicate intrastate transfers into their programs, as part of the enrollment data that the Special Education Division would be requesting each year for inclusion in the model. At the present time, this data is not available through the Title I Office of the Department of Mental Health.

In order to obtain the data on the number of children who attrited from the identified handicapped population, the Division of Special Education would have to develop another reporting form. (See Section VII.)

State residential schools, MR centers, MH clinics, etc., supply data on attritions from their special education programs to the Title I Office.

North Carolina Department of Public Instruction
Division of General Education
Special Education

Sent by Sp. Ed. to Local Public Health Dept. at the end of school yr.

Annual Report of the Hearing Conservation Program
from the
Public Health or School Nurse (ESEA)

The purpose of this report is to provide information pertaining to the Hearing Conservation Program. This will be valuable in compiling all related information into a cumulative report at the state level. This report will aid in evaluating the progress of services to the hearing handicapped and may also point out directions for future planning. This report should be mailed on or before May 31 of the school year to: Director, Special Education, Department of Public Instruction, Raleigh, North Carolina.

______________________ Administrative Unit

______________________ Date

Number of children:

1. Screened (Sweep Check Test) ____________
2. Receiving Threshold Test ____________
3. Having a loss in one ear ____________
④ Having a loss in both ears ____________
5. Needing periodical testing (minimum of once every year) ____________
6. Referred for otological examination ____________
7. Receiving otological examination ____________
⑧ Having hearing aids recommended ____________
⑨ Wearing hearing aid ____________
10. Receiving speech correction, speech reading, etc. ____________
11. Referred to school for the deaf ____________

indication of waiting list

(REPRODUCED FROM STATE FORM)

Number of Children Screened by Grades

1	2	3	4	5	6	7-9	10-12	Sp.Cl.	Total

Check one: Public Health Nurse _____ ESEA Nurse_____

______________________ Signature of Nurse

FIGURE 5. WAITING LIST DATA FOR SPEECH AND HEARING

General Population Projections

The projected number of children in the general population, by single year of age, for each year for which special education manpower projections are to be made, presents little problem in data collection, since Title VI project applications require this information, at least for the coming fiscal year. Projections required by the model are also available for future years, and applying incidence rates, once established, to the number of new entrants should present no difficulty.

Data Used to Simulate Special Education

Trends in the proportionate number of children served by each type of public school special education program, for every handicap group, are available from the Division of Special Education. Trends in the proportionate number of children served by each education program of MR centers, MH clinics, ED schools, etc., by handicapping condition and single year of age are available from the Title I Office.

The personnel/pupil contact ratios, for the types of public school personnel in direct contact with the children in each target group in special education programs, form another data item that is readily available from the Division of Special Education. These ratios are contained in a document entitled "Guidelines, Suggestions and Recommendations for Services for Handicapped Children," published by the North Carolina Department of Public Instruction.

For state residential schools, hospitals, centers, and clinics the recommended personnel/pupil contact ratios are determined by the directors of the individual institutions. In most instances, the curriculum is determined, teachers are hired, and the number of children in each class is determined on an individual basis for each teacher. The actual ratios, therefore, may vary from the recommended ratios.

Employment by Personnel Types

Employment data for special education personnel in public schools is available from form SE 69-2, "Use of Special Education (Handicapped) Allotments" (Figure 6). Employment data for special education personnel of residential schools, clinics, centers, and hospitals is also available from the Title I Office through the Division of Statistics.

V. PROCESSING POTENTIAL

Hardware

The Data Processing Section of the Comptroller's Office utilizes an IBM 407 Accounting Machine to process data for the Department of Public Instruction. This machine can be programmed to accommodate the Manpower Requirements Projection Model, but the procedures would be quite involved. It would be preferable to have the Data Processing Section tabulate all of the data from the local school districts to serve as input to the model but to have the actual model

Form SE-69-2 Div. of Special Education, N. C. Dept. of Public Instruction, Raleigh

USE OF SPECIAL EDUCATION (HANDICAPPED) ALLOTMENTS, RELEASE OF UNFILLED POSITIONS, REQUEST FOR ADDITIONAL POSITIONS

Administrative Unit:______________________________ Unit No.:____

We have filled our Special Education (Handicapped) allotments for 1969-70 as follows:

Name of Teacher	Certificate Type and Number	Name of School or Central Headquarters	Area(s) Position is Serving (use Codes*)	No. of Pupils Served

(REPRODUCED FROM STATE FORM)

(Use continuation sheets if necessary)

*Codes:
EMR=Educable Mentally Retarded
Hrg=Hearing Handicapped
Sp =Speech Handicapped
Cr =Crippled
VH =Visually Handicapped
ED =Emotionally Disturbed
LD =Learning Disabled
Hmb=Homebound
Hsp=Hospitalized

As of this date, this administrative unit is utilizing its State-allotted Special Education (Handicapped) positions as follows:

Total number of positions allotted:______
Total number of positions filled:______
Total number of positions unfilled:______

I hereby release the following number of unfilled positions:______
I hereby request the following number of additional positions:______

Signed:______________________________ Date:__________________
(Superintendent)

Please return one copy of this form, and continuation sheets as needed, no later than October 31, 1969, to: George A. Kahdy, Director, Division of Special Education, Department of Public Instruction, Raleigh, North Carolina 27602

FIGURE 6. USE OF SPECIAL EDUCATION ALLOTMENTS

programmed on other computing equipment. Such an arrangement would have to be made by the Division of Special Education and another data processing agency (public or private).

Software

Keypunching the data for the model could be accomplished by the Data Processing Section and the cost of the keypunch may be absorbed by this agency.

VI. ADDITIONAL FACTORS

Acceptance of Model Concept

The Director of Special Education and the Education Coordinator of the Title I Office of the Department of Mental Health seem very eager to establish the information flow and data processing capability necessary to implement the model. The Division of Special Education and the Data Processing Section of the Comptroller's Office appear to have excellent working relations with each other. Similarly, the Title I Office of the Department of Mental Health and the Division of Statistics also seem to have a highly satisfactory relationship. This factor will definitely assist these agencies in developing and implementing the model in North Carolina.

Constraints on Model Implementation

There is no individual on the staff of the Division of Special Education, nor among the consultants to the Division, who can be assigned to the project of developing and maintaining the information flow necessary to support the model. Even the incomplete data that is currently received by the Division of Special Education absorbs an excessive amount of staff time. The Director of Special Education estimated that his professional staff is involved in data collection, validation, and tabulation for 3 months of the year, amounting to a cost of approximately $50,000 of salaries. It definitely appears, then, that a statistical consultant would be required for model development and maintenance.

VII. RECOMMENDATIONS

As a result of the interviews with those individuals responsible for special education programs in North Carolina, several actions necessary for implementing the Manpower Requirements Projection Model can be recommended. First, the two state agencies accountable for special education program data collection must close the data gaps between current data availability and the amount of data required by the model. The most important item in closing the data gap requires these agencies to develop a procedure to capture information on those children who have been newly diagnosed as needing special education but are not currently being served by a special education program. All school district superintendents should be required to follow this procedure and supply the data by the fall of each year. Because of the high level of effort imposed on the superintendents by this task, considerable emphasis must be placed on the importance of collecting this data by the Division of Special Education.[1]

The local district in North Carolina is recommended as the source of this data because it is there that a child is processed and deemed eligible for special education. Cooperative directives could be issued between the Department of Education and each of the other agencies involved in diagnosing the children to affect the reporting of these newly diagnosed children to the applicable local district by child name, age, address, parent name, and handicapping condition of those children who are newly certified as needing special education.

If this method is chosen, a simple matrix form, one by handicap and age, could be used by the local district in a hash-mark fashion to record the children as they are reported to the district after diagnosis. (See Figure 7 for an example of such a form.) This form could then be forwarded to the state Special Education Division at the end of the year.

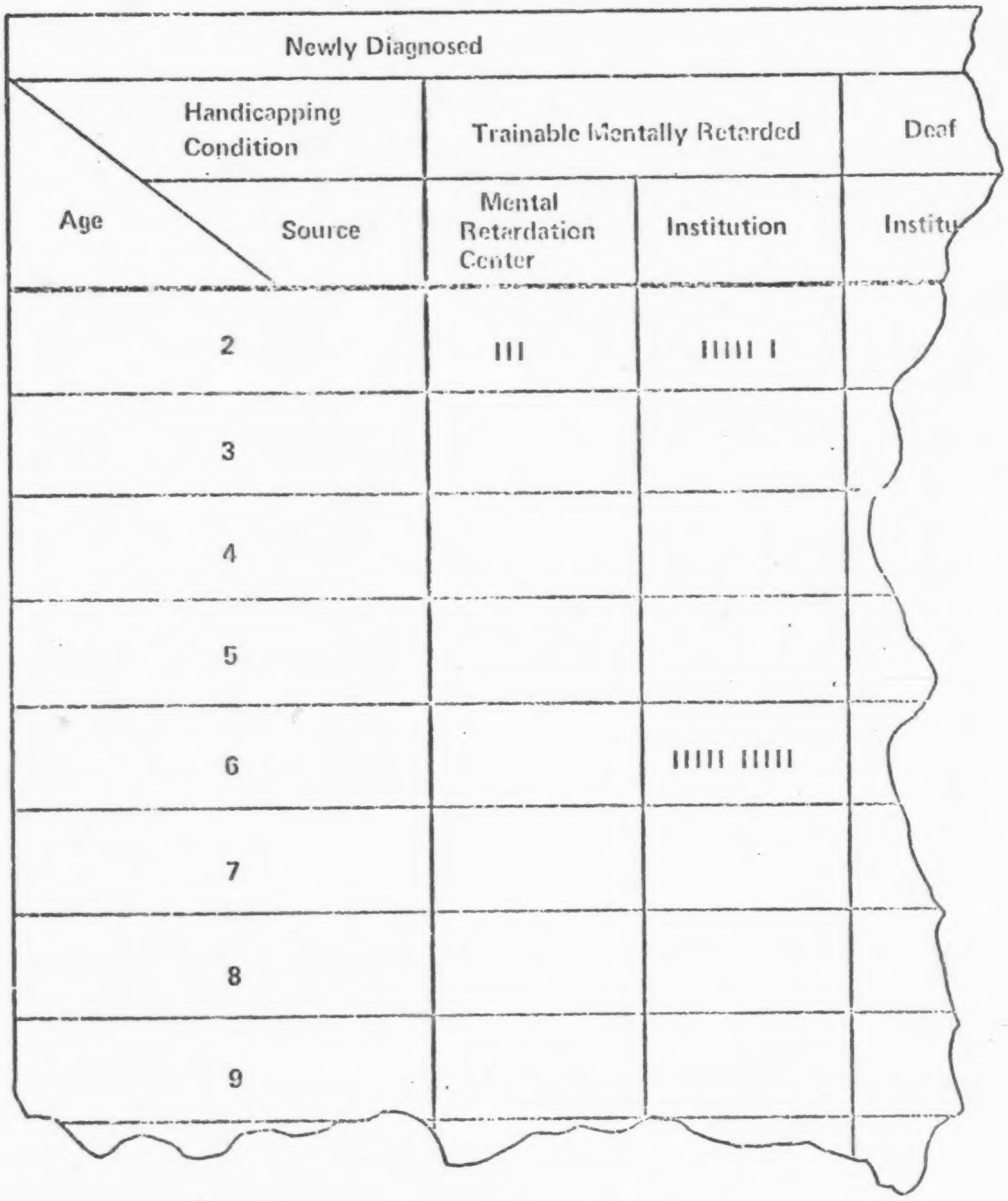
The foregoing methods for collecting data on entrants to the handicapped child population place the reporting burden on the local school district. While this procedure places considerable burden on the local superintendents, doing it any other way greatly increases the possibility of double counting.

It is also recommended that the Division of Special Education modify its "Special Education Approved — Program Plans" to allow local districts to report enrollment data according to the ages of the children. The Division of Special Education should also modify its listing form for trainable mentally retarded children to include information on the type of classroom instruction received by the children.

Waiting list data is required by the model in order to establish the total number of identified handicapped children. At the present time, this data element is not available for public school special education programs. A new data collection instrument would be needed to obtain the number of children, by single year of age and specific handicapping condition, who are awaiting entrance to a public school special education program.

---

[1] During the time that is required to develop reliable data on the unserved child population, the Division of Special Education may choose to continue to use estimates of this population from past experience and published CEC articles. Using such prevalence rates is only an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run (not only for applying the model but for other state planning purposes), they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.



Newly Diagnosed			
Handicapping Condition	Trainable Mentally Retarded		Deaf
Age Source	Mental Retardation Center	Institution	Institu
2	III	IIIII I	
3			
4			
5			
6		IIIII IIIII	
7			
8			
9			

FIGURE 7. EXAMPLE OF MATRIX FORM TO COLLECT LOCAL DISTRICT DATA ABOUT NEW ENTRANTS TO HANDICAPPED CHILD POPULATION AND EXAMPLE OF HASH-MARK ENTRIES

New reporting forms are also required to obtain intrastate transfer data and attrition data concerning public school special education programs. Again, this data must be available according to the age of the children involved, and their specific handicapping condition.

The Title I Office of the Department of Mental Health must also obtain intrastate transfer Statistics from the Division of Statistics. It should be noted that this is the only data item required by the model that is not currently available to the Title I Office.

VIII. RESOURCE REQUIREMENTS—MANPOWER

It is estimated that approximately 2 man-months of effort by the Division of Special Education staff, $\frac{1}{2}$ man-month for forms design, 2 man-months of systems analyst time, $\frac{1}{2}$ man-month for programming and $\frac{1}{2}$ man-month of clerical effort would be necessary to develop the procedures for implementing the model, including coordinating information collecting activities with other state and local agencies during the first year. In subsequent years, this effort might be reduced to $1\frac{1}{4}$ man-months of cumulative effort annually for systems maintenance. It should be noted that once the model is developed and operating on the computer, the current special education manpower involved in the manual compilation of data will be eliminated.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Mr. Jeffrey Koshel, during the week of 1 December 1969 were:

George A. Kahdy	Director, Special Education
Paul A. Peeples	Assistant Director, Division of Special Education
Waylon L. Bissette	Special Education Coordinator, Department of Mental Health
Robert Marley	Title I, ESEA, Department of Public Instruction
Theodore R. Drain	Consultant, Instructional Materials Center
J.L. Barden	Title VI-A, ESEA
Mrs. Pearle R. Ramoa	Public Law 85-926, as amended, and Consultant, Speech and Hearing
Mable L. Hardison	Instructional Materials Center
Addison Neal Smith	Consultant, Speech and Hearing
G. Reece Howell	Consultant, Mental Retardation
H.B. Shubert	Consultant Psychologist
Barb Hanner	Consultant, Speech and Hearing
Una May Lemmon	Consultant, Mental Retardation
Lowell Harris	Consultant, Mental Retardation
Carlton Willis	Chief, Data Processing Section, Comptroller's Office, Department of Education

TABLE 1

SUMMARY OF DATA DEVELOPMENT STATUS

NORTH CAROLINA

DATA ELEMENTS			PUBLIC SCHOOLS			RESIDENTIAL SCHOOLS, CENTERS, CLINICS			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Not available	Modification of "Special Education Approved Program Plans"	Local school district	Currently available at state level	Not applicable	Title I Office Department of Mental Health	Not available at state level
		HANDICAPPING CONDITION	Currently available						
		EDUCATION PROGRAM							
	ON WAITING LIST	AGE	Not available	New form required	Local school district	Currently available at state level	Not applicable	Title I Office Department of Mental Health	Not available at state level
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available	Joint directives needed	Local school district	Not currently available	Joint directives needed	Local school district	Not available at state level
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	AGE	Not available	New form required	Local school district	Not currently available	Must be requested from Division of Special Education	Title I Office	Not available at state level
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Not available	New form required	Local school district	Currently available	Not applicable	Title I Office	
		HANDICAPPING CONDITION							
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Available	Not applicable	Division of Special Education				Not available at state level
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Available	Not applicable					
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Available	Not applicable	Division of Special Education				Not available at state level
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available	Not applicable	Division of Special Education	Available	Not applicable	Title I Office	Not available at state level